Annual Survey enclosed — Please respond

RCMA

NEWSLETTER

JANUARY 1990

Photo by Windsor Star; submitted by Richard (CANA–138)

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION OF MONITOR RADIO LISTENERS

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS — ANARC

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RCMA NEWSLETTER

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P. O. Box 542
Silverado, CA 92676

GENERAL EDITOR
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961 Azalea Street
Boca Raton, FL 33846

FOR YOUR INFORMATION:

1. Input to the RCMA Newsletter should be mailed to the proper editors, whose addresses are included in the individual column heads. If no particular column seems appropriate, send to RCMA General Manager, P. O. Box 542, Silverado, CA 92676.

2. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address; mail to RCMA General Manager, P. O. Box 542, Silverado, CA 92676.

3. PLEASE INCLUDE YOUR MEMBERSHIP NUMBER WITH ALL CORRESPONDENCE to newsletter editors or club headquarters.

4. If you require a reply when writing to newsletter editors, please include a self-addressed, stamped envelope.

5. Please don't combine in one letter several items that should go to different addresses. Be sure to write on one side only of your paper.

6. If you want to type or word process information you are submitting for publication, you MUST do the following:
   a. make your written line length 7 inches
   b. single space your copy
   c. make your frequency lists single column
   d. do not skip more than one line between topics or paragraphs
   e. do not use an *italic typeface*

7. Your RCMA membership number and expiration date appear on your mailing label.

8. You may join or renew your membership for only ONE year at a time.

9. RCMA accepts paid advertising. For information on rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P. O. Box 542, Silverado, CA 92676.

The RCMA Board of Directors supports the policy of not printing certain federal law enforcement frequencies, e.g., Secret Service, FBI, Customs, DEA. Agreement with this policy has been reinforced by a membership survey.

RCMA Newsletter

Issue 168 January 1990

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CONTACTING RCMA?

For membership applications or renewals, address changes, inquiries about delivery or renewal problems, write to:

RCMA General Manager, P.O. Box 542, Silverado, CA 92676

Have a comment about RCMA club policy or newsletter content? Write to:

William Mauldin, RCMA General Editor, 961 Azalea Street, Boca Raton, FL 33486

Want a letter published in *Your Thoughts* column? Write to:

RCMA General Manager, P.O. Box 542, Silverado, CA 92676

Correspondence sent to RCMA's Anaheim P.O. Box will still be answered, but there will be a 4–6 week delay.

January cover photo: Fighting a fire in a Windsor, Ontario paint factory.
Photo by Windsor Star; submitted by Richard (CANA–138)

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Inc., P.O. Box 4563, Anaheim, CA 92803. Membership dues are $18.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico—$22.50; Europe—$22.50; South Pacific and Asia—$22.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. RCMA, Inc. does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted©. Reproduction of any material in this newsletter is prohibited without prior written consent.

RCMA STATE ASSOCIATE EDITORS

RCMA State Associate Editors are your in-state club representatives. The job of the Associate Editor is to collect information within his state, then verify and combine the material with other contributions from your area. Once a month, the Associate Editor forwards ALL information received to the designated column Staff Editor. The Staff Editor writes the monthly column you read in the NEWSLETTER.

If your state has an Associate Editor, send your contributions and questions to him. He is best equipped to deal with matters within his area, and can probably answer questions of a local nature. Write to him first and BE SURE TO INCLUDE AN SASE.

If your state is not listed (except for California), the position is open for assignment. If you would like to be considered for the volunteer job, send a stamped, self-addressed envelope for an application. Your active, monthly participation is required and expected if you are selected as state Associate Editor.

There is a great deal of satisfaction in being the RCMA Associate Editor representative for your state, and **Associate Editors get a 50% discount on yearly dues**. We are looking for workers, not information collectors. If you are serious about RCMA, consider being an Associate Editor! Typewriters and computer printers are NOT required for Associate Editor assignments.

NOW—AE's receive a 50% reduction in membership and 1st class mailing of the newsletter

Applications are available by sending a stamped, self-addressed envelope to RCMA Managing Editor, 961 Azalea Street, Boca Raton, FL 33486

Associate Editor Listing as of November 20, 1899

ALABAMA: .....David Beck, 422 Laurie Dr., Birmingham, AL 35214
ALASKA: .....Position OPEN
ARIZONA:.....Bob Schmulian, 4415 N. Rockcliff Rd, Tucson, AZ 85715
ARKANSAS: .....Lee Murphy, Rt 3, Box 402–A, Crossett, AR 71635
NORTHERN CALIF:.....Gary Webbenhurst, 8430 La Riviera Dr, Sacramento, CA 95826
COLORADO:.....Position OPEN
CONNECTICUT:.....Stephen Repetto, 42 Glenstone Dr, Vernon, CT 06066–4202
DELAWARE: .....Position OPEN
DIST OF COLUMBIA:...Position OPEN
FLORIDA: .....Randy Kerr, 310–1 SW 62nd Blvd, Gainesville, FL 32607
GEORGIA:.....Steve Giovanis, 4314 14th St, East Beach, St Simons Island, GA 31522
HAWAII: .....Position OPEN
IDAHO:.....George Wight, P. O. Box 732, Groveland, CA 95321
ILLINOIS:.....Bob Fairburn, P. O. Box 463, Gridley, IL 61744
INDIANA:.....David A. Nugent, 2542 Birk Dr, Jasper, IN 47546
IOWA:.....Position OPEN
KANSAS:.....Steve Jester, 1115 North Park, Wellington, KS 67152
KENTUCKY:.....William G. Gourley, P. O. Box 1603, Paducah, KY 42002–1603
LOUISANA: .....Jeff Waldrop, 1018 Bee Tree St, Westlake, LA 70669
MAINE: .....Position OPEN
MARYLAND:.....William Staubs, 756 221st St, Pasadena, MD 21122
MASSACHUSETTS: .....Mariner S. Ayer, Jr., 299 Thompson St, Middleboro, MA 02346
MICHIGAN: .....Richard McLaughlin, 3921 Marland Dr, Lansing, MI 48910
MINNESOTA: .....Jerry Ensign, P. O. Box 28148, Crystal, MN55428–0184
MISSISSIPPI: .....Position OPEN
MISSOURI:.....Michael Redman, P O Box 49, High Ridge, MO 63049
MONTANA: .....Position OPEN
NEBRASKA: .....Position OPEN
NEVADA:.....Fred McGowan, P O Box 879, Las Vegas, NV 89101
NEW HAMPSHIRE:.....Position OPEN
NEW JERSEY: .....Richard D. Prail, P O Box 1274, West Caldwell, NJ 07007
NEW MEXICO:.....Position OPEN
NEW YORK: .....Joseph Nooney, P. O. Box 30, Valatle, NY 12184
NEW YORK CITY .....Phil Caruma, 7225 73rd St., Glendale Queens, New York, NY 11385
NORTH CAROLINA:.....Randy Whaley, 22F Sailsway Dr, Greensboro, NC 27406
NORTH DAKOTA: .....Position OPEN
OHIO: .....Oscar J. Mann, Jr., 6800 Mayfield Rd, Mayfield Heights, OH 44124
OKLAHOMA: .....Jay D. Kruckenberg, Rt. 2, Box 31, Mooreland, OK 73852
OREGON:.....Al Musgrove III, 2402 E. McAndrews Rd, Medford, OR 97504
PENNSYLVANIA:.....Keith E. Maydak, 6393 Penn Ave, Pittsburgh, PA 15206
RHODE ISLAND: .....Position OPEN
SOUTH CAROLINA:.....Billy Estes, 117 Willard Bouknight Rd, Irmo, SC 29063
SOUTH DAKOTA:.....Position OPEN
TENNESSEE: .....Curtis Harbin, P O Box 5576 EKS, Johnson City, TN 37603
TEXAS:.....Robert Barker, 1801 Wells Branch Pkwy #1630, Austin, TX 78728
UTAH: .....John D. Parken, 4672 South Deer Creek Rd, Salt Lake City, UT 84124
VERMONT:.....Dan J. Gilman, 123 Walnut St., Rutland, VT 05701
VIRGINIA: .....Landon Davis, 2807 Rifle Ridge Rd, Oakton, VA 22124
WASHINGTON:.....Kenneth E. MacLeod, P. O. Box 2495, Friday Harbor, WA 98250
WEST VIRGINIA:.....Position OPEN
WISCONSIN: .....John P. Johnson, 1905 E Lexington Blvd, Eau Claire, WI 54701
WYOMING: .....Christopher D. Smith, P. O. Box 1229, Ogden Utah 84402

Applications are available by sending a stamped, self–addressed envelope to:
RCMA Managing Editor, 961 Azalea Street, Boca Raton, FL 33486

CALENDAR

Send notices of upcoming events for the Calendar section to:
RCMA General Manager, P. O. Box 542, Silverado, CA 92676

Deadline: 1st of the month two months prior to cover date.

Dates for the "**Dec 1989**" Newsletter which hopefully you got in November

Paste up completed :	19 Oct 89	Labels to mailer :	6 Nov 89
Delivery to printer:	20 Oct 89	Newsletters to mailer:	3 Nov 89

West Los Angeles Chapter

Contact : Rick DiFiore (CA-LA-544) (213) 397-6581 or
Hugh Stegman (CA-LA-472) (213) 398-5353
Talk in: 146.925 MHz {-600 PL-2A} Tues 1930 hrs net.

Meetings on the second Wednesday of each month at 7:30 PM, in the front patio of Chris's Pizza, 10105 Venice Blvd.. Los Angeles (213) 838-2151. Nearest major street is Motor Avenue. This is east of the 405 freeway and south of the 10 (get off at Robertson and head west on Venice). Use or monitor 146.925 for talk in.

Austin Area Radio Listeners Meeting

Contact David Litsinger TX -032 441-0650
P.O. Box 17142, Austin, TX 78760

Contact David for time and locations of meetings.

R.C.M.A. Chicago

Contact Ron Kosinski
P.O. Box 528213, Chicago, IL 60652

Saturday	January	20	1990	1:00 P.M.
Saturday	March	3	1990	1:00 P.M.
Saturday	April	21	1990	1:00 P.M.
Saturday	June	9	1990	1:00 P.M.
Saturday	August	11	1990	1:00 P.M..
Sunday	August	26	1990	Annual picnic & Field day
Saturday	October	13	1990	1.00 P.M.
Saturday	December	1	1990	1:00 P.M.

The Chicago Chapter requests that interested R.C.M.A. members send a year's supply of 9 S.A.S.E. plus a $2.00 contribution to the "contact person" listed above. The contribution funds will be used to cover the printing of the newsletter that will be send to all Chicago Chapter members just before each meeting.

Visitors are welcome but please confirm the date in advance.

R.C.M.A. for D.C., MD, VA, & DE

Contact: Capitol Hill Monitors
Alan Henney (MD 069) 6912 Prince Georges Ave,
Takoma Park, MD 20912
Arnold Miller (MD 054) 407 Foxview Court,
Reisterstown, MD 21136

Local Chapter Newsletter is supplementary to the RCMA and the NSEA newsletters. The CHM newsletter appears as a NESN column (see Northest Scanners section for subscription information). No meetings presently scheduled. Please send information & requests for Baltimore Region to Arnold, and all other areas (including Washington) to Alan. Visitor, traveler & frequency requests are welcome. (please send a SASE).

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc). Non members are welcome to attend.

Northeast Scanners

Contact Les Mattson NJ 187
212 West Broad Street, Paulsboro, NJ 08066

"The Northeast Scanning News" a monthly publication covering the states of New Jersey, New York, Pennsylvania, Delware, Maryland, DC, Maine, Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont. Sample copies $2.00. Make checks out to Les Mattson.

Philadelphia Notification Network

Contact : Chuck Gysi PA-005
P.O. Box 144-PR, Rosemont, NJ 08556-0144

PNN is a scanner notification group composed of RCMA members in the Philadelphia area, including Pennsylvania, south and central New Jersey and northern Delaware. PNN operates a wide-area UHF repeater system so that participants can notify each other of urgent scanner activity. PNN also holds occasional meetings during the year. Send a S.A.S.E. for information.

All Ohio Scanner Club

Contact David B. Marshall OH-146, Managing Editor
50 Villa Road, Springfield, OH 45503-1036

The All Ohio Scanner Club covers all of Ohio, plus Illinois, Indiana, Kentucky, Michican, Pennsylvania, West Virginia, and Ontario, Canada, plus other areas as well. Members from these and other areas are welcome. The AOSC newsletter also features execellent federal goverment and below 30 MHz utilities columns.

Sample Newsletter $2.00. Membership information for a SASE

Southern California Area DxerS

Contact Don R. Schmidt, Director
3809 Rose Avenue, Long Beach Ca 90807-4334

Meetings Long Beach MERCURY SAVINGS 4140 Long Beach Blvd.

Januaray	27 1990	April	28 1990
February	24 1990	June	23 1990
March	24 1990	July	28 1990

Toledo Area Radio Enthusiasts

Contact Ernie Dellinger 6629 Sue Lane, Maumee, OH, 43537
(419)-865-4284

The TARE is a group of radio buffs (SWL & scanners) that meet on the third Thursday of each month at 7:00 PM at Frisch's Big Boy Resturant, 6609 Airport Hwy (St Rt 2 just West of I-475) in Holland, Ohio.

R.C.M.A. Wisconsin

Contact Scott W. Miller WI-039
122 Greenbriar Drive, Sun Prairie, WI 53590

NEED RCMA BACK ISSUES?

1987, 1988 and 1989 issues to date are available until Dec. 31, 1989, at which time 1987 issues will no longer be stored. The following postage rates apply to all orders, and are in addition to the cost of the newsletters.

THE COST OF EACH ISSUE IS $1.00

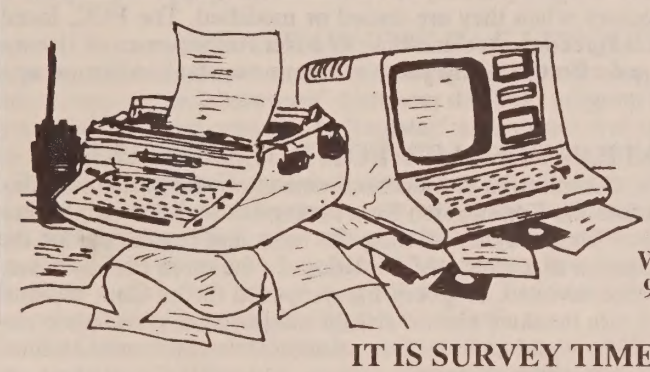
When ordering, calculate $1 per issue. Then refer to the chart below for the correct amount of postage. (Rates based on lst class USPS.) Address order to RCMA Back Issues, P.O. Box 542, Silverado, CA 92676.

# OF ISSUES	AMOUNT OF POSTAGE
1	$ .85
2	$ 1.65
3	$ 2.25
4 thru 8	$ 2.40
9 thru 12*	add $ .48 for each issue

Issues not available:
December '87
December '88
January '89

*Orders shipped at maximum of two years (24 issues) per package.

PLEASE NOTE: If for any reason the amount of your check or money order is greater than that needed to fill your order, the difference will be applied to your current membership. This applies to any amount under $10: if more than $10, you will receive a refund check.



From The CAPTAIN'S DESK

William Mauldin, RCMA General Editor
961 Azalea Street, Boca Raton, FL 33486

IT IS SURVEY TIME AGAIN!

It is SURVEY time again. Each year, in an effort to learn more about YOU and what you want from RCMA, we print the ANNUAL SURVEY. January is SURVEY month! The 1990 SURVEY is the centerfold of this edition of your RCMA NEWSLETTER.

Please take a few minutes before you put this issue away to remove the centerfold page, answer the questions, and return the SURVEY to me. We have tried to make it a simple, easy task this year. The centerfold page can be easily removed without causing any damage to this issue. Simply pull out the folded page. The SURVEY questions are on pages one and two. Page three is for you to list your favorite frequencies. Page four has my address and a place for a 25 cent stamp. All you have to do is pull out the page, answer the questions, fill in your favorite frequencies, fold, stick on a stamp, and mail. We need your response right away, so please take a few minutes and complete the task before you put this issue away!

The annual SURVEY is very important to you, RCMA, and to the membership. There is no need to sign your name or indicate a return address unless you want to do so. The information will be fed into a computer. The frequencies will be distributed to your State Associate Editor for distribution to the proper column for print consideration. From your answers, we learn what you want from RCMA for 1990. Your interests and equipment make a big difference in what we print. It also allows us to consider major changes in assignments during the coming year.

We need your response! Please complete the SURVEY and return as soon as possible! With your help, we can make RCMA more interesting in the months ahead!

DOES YOUR STATE HAVE AN ASSOCIATE EDITOR?

If you are a new member to RCMA, why not consider joining the ranks of our most active members, the Associate Editors? There are several states that are currently open. We are looking for active, devoted members to fill these positions. If you feel your state AE is not performing as he should, you might be interested in knowing that we DO REPLACE AEs that do not meet minimum performance standards. If you would like to be an AE, send me a stamped, self-addressed envelope for an application form! If you are interested in a current opening, we will consider your application right away. If you are interested in being placed on the 1990 Wait List for your state should the AE resign or be replaced, then get your application on file!

Associate Editors are the backbone of RCMA. They are "paid" for their services by receiving a 50% discount on their next membership dues payment. And, best of all, their NEWSLETTER magazine is mailed promptly each month via first class mail! As an Associate Editor, you receive information and correspondence from the members in your state. You get to see the latest information FIRST! All you have to do in return for all of this is... have some written contact with your Public Safety Editor by the

22nd of each and every month. Of course, you are required to send him all of the information you receive, but only after you have reviewed it! The column editors will depend on you to make certain your assigned state is in print every month. You are not required to have a typewriter or a computer. You are required to be an active, monthly participant.

To get your name on this 1990 list for an Associate Editor position, send me a stamped, self-addressed envelope. We will be making appointments for the current openings soon. I would like to consider your application!

ACE ANNOUNCES THE NEW AR950 SCANNER

ACE COMMUNICATIONS of Indianapolis has introduced the latest addition to the AR scanner line, the AR950. This is a 100 channel scanner with five memory banks. The black case houses one of the lightest weight scanners for base or mobile use that I have ever encountered. The AR950 operates on 120 VAC or 12 VDC, and comes complete with mobile mounting bracket, and two antennas. One telescoping antenna is for low band, VHF, UHF and 800 MHz listening. The other, a small black antenna, is designed for those desiring just 800 MHz coverage. This is not a continuous cover age scanner like the AR2515, but it does cover the popular scanning bands plus 800 MHz.

ACE sent an AR950 for review this month. We will be putting the unit through the high stress testing of mobile and base use in the heavy intermod areas of South Florida soon. Once the tests are complete, we will forward the review to Curtis Harbin, Editor of New Product Review for print consideration.

CONGRESS MOVES AHEAD WITH RADIO LICENSE FEE PROPOSALS

As this article is being written, Congress is considering fees for all radio licenses if the pending legislation is passed. The American Radio Relay League (ARRL) is upset with the proposal, which, if passed, would levy a $30 fee on amateur licenses when they are issued or modified. The FCC, faced with budget cuts for the coming year, says it is forced to do something to cover the expenses of license application and processing. This is the first real effort in many years to return user fees to license applications.

HAM PROPOSES REEXAMINATION PENALTY FOR RULE BREAKERS

Eric Hogberg, W4TAH, has proposed to the Commission that licensed amateurs who break the rules and are caught doing so should be brought before the Commission for a reexamination of their amateur license and class. In the past, when hams have been caught violating the rules and regulations of the Amateur Radio Service, they were issued a citation as a Notice of Violation. In the more serious cases, the viola tor would be fined or have his license revoked. Hogberg has proposed to the Com mission that in addition to the slap on the hand, ARS rule breakers should also be subjected to a complete reexamination for their license and class held. This would cost the Commission little since most examination testing is now done by seriously minded volunteer testing groups. These VECs, as they are called, could clearly help in the rule enforcement by giving unbiased testing to violators. This proposal has struck fear into the hearts of "marginal" hams, few of whom could pass today if retested. Comments on the proposal should be addressed to the Commission.

RED MONKEY NAILED AGAIN BY U.S. MARSHAL

Agents of the U.S. Marshal Service and FCC field engineers have closed Red Monkey Communications in Fresno, California once again, reports the ARRL Newsletter. The business had been closed once before, and the owner fined and placed on probation back in 1985. During this raid, FCC engineers and U.S. Marshals conducted a search and seizure operation which netted over $2000 worth of illegal CB amplifiers at the business. A second conviction of making or marketing non-compliant electronic equipment carries a fine of $100,000 and/or two years imprisonment for owner of the Red Monkey Communications Company. During the initial conviction, the owner was fined $5000 and placed on two years probation.

FCC Engineers also arrested three San Francisco Bay CB users for operation of illegal, high powered amplifiers. The equipment of the three individual users was confiscated and fines were leveled following the arrests. The seized CBs involved equipment capable of operation outside of the CB band and six CB linear amplifiers. Commission engineers said the investigation was a result of complaints registered by neighbors who complained of interference to TV and radio reception. (ARRL)

LOOK WHAT IS COMING IN A.M. RADIO!

WNZK-AM started it all when the AM broadcaster applied for a waiver to the station broadcast license. WNZK normally broadcasts on 690 kHz as a low power, local AM station during the day. All of us have a local AM station near by. If you listen to the local station, you get local news and commercials. Under the rules, 690 kHz is a limited coverage, low power, directional frequency. WNZK was limited in both coverage and income by the laws governing those users of 690 kHz. With this limitation in mind, and a desire for increased revenue, the owners of WNZK approached the Commission with a most unusual application. WNZK wanted to switch frequencies at night when it was normally required to leave the air! The little low power daytime operation made application to switch to 680 kHz at night an increase power for much better coverage.

WNZK is perhaps the right AM station to require such a consideration, considering the times. The station broadcasts an "ethnic" format, programming in 24 different languages. The unique format offers much listening pleasure to minorities in the Detroit area. Although the FCC initially turned down the application request, it has agreed to reconsider the request under certain conditions. If the application is approved, this could open doors which had been previously closed. This will be an interesting case to

watch. You may not find your favorite station at it's regular spot on the dial if the frequency change is approved in this application! (Radio World)

MOTOROLA ANNOUNCES WRIST WATCH PAGER

Motorola Inc. has announced a first, one that Dick Tracy would have been proud to own. The Wrist Watch Pager, an industry first, has been announced by Motorola. The new pager combines a numeric display pager with the features of a digital display watch. The product was developed by the talented staff of Motorola working with the innovative people of Timex Corporation.

The Wrist Watch Pager features separate controls for time keeping and pager functions. The small pager fits on the wrist, looks like a watch, and weighs less than two ounces. The battery provides more than forty days of continuous operation, and offers a non-volatile memory which stores messages even when the pager is turned off. The message erase feature will allow the user to delete all "read" messages without affecting the "unread" and protected messages in memory. As an added feature, the pager has a time stamping feature which displays the time that the page message was received. Display is on a liquid crystal screen.

Motorola says the new pager is compatible with most current radio systems being used by common carrier paging companies.

NATIONAL PAGING FREQUENCY ANNOUNCED

The following frequencies have been noted as "national paging frequencies", offering those interested in being reached "anywhere, at any time, at any place" a way to be reached. Canada is also accepting the following frequencies in their national system. The 900 MHz band was selected as the band for the service, with actual paging to be done on 931.8875 MHz, 931.9125 MHz, and on 931.9375 MHz.

UPDATE ON THE RAC FREQUENCY PROGRAM

By now, most of you who own computers and who catalog your own frequencies have been able to obtain a copy of the "shareware" computer database program by Bob Cheek. I want to encourage those of you who have the program to "register" as a owner and user. In addition to planned program improvements, Bob Cheek (RAC Publications) is planning to offer periodic mailings to registered owners. These mailings will announce databases that will be available to the registered owners at no cost. Once the registered owner receives the list of the databases available, he can simply send a disk in a round trip mailer to RAC, plus enough postage for the return trip, noting the frequency lists that he desires. Database size will be noted on the frequency lists so you will know just how many with fit on a disk. RAC already has several very interesting frequency list databases on file, and there should be a good selection by the time the first list is mailed!

The RAC Frequency Program has been widely accepted. The program is self supporting, fast, complete, and offers a "standard" in frequency data exchange. Although the initial program is offered as "shareware", updates and program improvements will not be offered in the "shareware" concept. Only the owners of "registered" copies will be notified of the frequency lists available, although we will announce program improvements in this column, as Bob produces them. The initial "registration" fee was $15. This is no longer the case. Registration is now $25. This increase in cost is because of the ever changing plans and extensive "free" databases to be offered to registered program users. Frequency databases beyond imagination being planned. As a registered owner and user, the periodic announcements will offer program update information and computer database lists.

If you are a computer buff, you can get your "shareware" copy of the initial program by sending me a disk, a buck, and a mailer that will make the round trip. I'll make you a copy from mine at no additional cost. The program is compatible with IBM PC type computers only at this time. You can also download your "shareware" copy from most radio hobby related BBS systems by modem. Once you get your program, I strongly encourage you to exchange data with others in the RAC.DBF format! And, by all means register your copy with RAC and benefit from planned program improvements and frequency database lists. I have registered my copy, and already my frequency collection is growing. I might also mention that, as a "registered owner" of the RAC program, you will be encouraged to send in your "frequency database" to RAC, helping the list of databases grow for the enjoyment of all!

RAC Publications can be reached by mail at 22320 SW 63rd Avenue, Boca Raton, Florida 33428. Bob Cheek is the former RCMA Computer Corner Editor, and has extensive experience in both communications and computers. The RAC Program is written in Clipper and is a stand alone frequency catalog program written to conform with the RCMA print format. The initial program is offered as "shareware" and not copy protected.

WAS 1989 A SCANNER YEAR?

From the DESK, we have watched the new scanners come and go. Many new products were introduced during the year. Some were impressive, some held great potential, and some left a devoted radio hobbyist with disappointment. In as much as we asked you for your comments in the SURVEY, let me give you some closing personal observations for 1989.

From your letters and comments, most RCMA members still prefer the older Radio Shack PRO-2004 to the newer PRO-2005. Radio Shack built the 2005 with more channels and better sensitivity, but missed the boat with the plastic case, the non removable AC power cord, and the lack of a mobile mounting bracket. Maybe Radio Shack will keep the scanner user in mind when they build the 2006, and correct these three items. You hear no complaints about Radio Shack service.

ACE has the scanner world at their heels with the AR2515. The small, sensitive, professional scanner is really going places. ACE not only has a good product in the 2000 channel, all mode, AC/DC scan-

ner, but their excellent customer satisfaction guarantee is fair to all concerned. The 2515 V3.0 still has a few bugs, but ACE is working hard to correct them. The 2515 is not a simple radio. The complex, professional quality listening device is probably the most promising product of 1989 in my book. With complexity you expect some problems, but you also expect solutions. ACE is working to solve the few remaining problems, with customer satisfaction the final objective. A new, working version of the 2515 computer software should be available in early 1990.

Uniden seems to have lost the lead in the scanner race. Regency is not in the running. It seems a shame considering the excellent lead Electra Bearcat had in the beginning. From editorials in the major scanning magazines and comments made by you, the scanner user, Uniden should spend more time in the service shop offering prompt repair turn-arounds and less time in the courts trying to protect patents. Most of us have a few radios that we will never part with. I have one Bearcat IV and three Bearcat 300 scanners that I rank this highly. I wonder if I will feel like that about my Uniden 200XLT in a few years?

Icom still holds the lead for making a "scanner" that does what is expected for the money you pay with their R-7000. This is still the standard by which I judge the actual performance of all other scanners produced today. With the Datametrics software and connector box, an Icom R-7000, and a good AH-7000 discone antenna, you can sit back and truly enjoy the listening. Although not new for 1989, and a bit expensive, if you had the bucks and a place to put it, the R-7000 would be a good first choice for the serious listener. This is especially true when you add the Datametrics computer controller package. It is a winner hands down.

I have been generally pleased with the products of 1989. They all seem expensive when you see the retail price tag, but with selective shopping, there are buys to be had. I am looking for great improvements in 1990. There are things I would like to see sometime this year. I would like to see ACE get all of the bugs out of the AR2515, although it is great as it is. I would like to see Radio Shack introduce the PRO-2006, a new 500 channel scanner (which can still be modified for those who want to modify it...for personally, I wouldn't buy it if it couldn't be), with still more sensitivity in a metal case, a removable AC power cord, and a mobile mounting bracket. I would like to see Uniden offer better customer support and service. I would also like to see that the rumors are true and see Uniden produce a scanner that can truly follow 800 MHz trunking and offer PL protected programming for those bands that use PL. I would like to see Icom continue to produce the R7000, maybe even improve it and make it smaller. I would like to see better software to control these tiny listening devices, not just more of it. And, I would like to make enough money to buy an Icom R9000, so I can not only listen to "it", but see "it" as well.

If someone would come along and do away with the Electronics Communications Privacy Act so far as hobbyist are concerned during 1990, my year would be complete. Fat chance, as they say.

With technology rapidly advancing, will anyone will pay attention to the scanner user this year. Maybe they will. Will I consider selling my Bearcat IV and my Bearcat 300s by the end of year. I'm not making any bets. Have a happy and enjoyable listening year in 1990, my friends. Thanks to everyone for the cards, letters, and support during 1989! It is time to turn the page, and start a new year once again.

AIRCRAFT

Civilian: Send private, commercial, firefighting and law enforcement aircraft frequencies in the 108-136 MHz range and frequencies in other bands associated with civilian aircraft or airports.

Military: Send information and frequencies for military aircraft in the 118-140 MHz and 225-400 MHz bands and frequencies in other bands associated with military aircraft or aircraft support-related frequencies at Naval, Coast Guard, and Marine Air Stations, Army Air Fields, and Air Force Bases.

Send information, questions, articles, and tips related to aircraft monitoring to:

Darrel Charest, 3420 Trenary Lane, Colorado Springs, CO 80918

Firefighting and law enforcement aircraft freqs and airport security freqs are welcome in this column and in the Public Safety columns. Civilian and military HF SSB freqs are OK when handed off to or from ARTCC controllers; otherwise, send to the Below 30 MHz column. All air show associated frequencies are fair game. Other non-aircraft-related military freqs go to Federal Government and Military column.

Several months ago a member suggested an article on ARINC. And because the mail was slow during the past month, this seems an opportune time to look at ARINC.

ARINC arrived some sixty years ago, organizing as a corporation in 1929 with airline companies being the principal owners and users. ARINC is, by and large, airline company communications, even though services are made available to large or small airlines, scheduled or commuter lines, U.S. or foreign carriers, business and private as well as government aircraft.

ARINC operates a nationwide VHF air/ground communications network as well

as service on oceanic routes using HF radio channels. A VHF network of 200 stations is controlled from four communications centers located at New York, San Francisco, Honolulu and San Juan.

Domestic VHF channels are used primarily for airline company traffic, for load messages, departures, arrivals, maintenance requirements and similar communications. Oceanic HF channels are used for air traffic control communications as well as airline company messages. On HF channels you may hear numerous foreign stations in addition to those operated by ARINC.

Today much of the routine VHF airline company business is carried by ACARS, a system similar to radio teletype. At present not all carriers are equipped with ACARS and these companies continue to use voice. Like ATC communications, airline company traffic tends to be routine. Yet as any avid ARINC monitor listener will remind you, the real action will be found in these channels. Some of these humorous incidents might include the Honolulu passenger who boarded the Detroit flight and didn't learn of the mistake until he was over the Grand Canyon.

Eastern Airlines operates a similar communications service throughout the continental U.S. although not as extensive as ARINC. Eastern has but one communications center located in Atlanta. Therefore when you hear Atlanta radio you are monitoring Eastern. When you hear New York or San Francisco radio you are tuned to ARINC.

Look for the VHF ARINC frequency listing at the end of the column.
++

During the month we received several questions from Chris, CALA-775. Here are some of them and our response to Chris.

As you already know, aviation often seems saturated with acronyms. Among many monitored in the aircraft band are references to VFR and TCA. Chris wants to know their meaning.

VFR equates to visual flight rules, i.e. flying clear of clouds with in-flight visibility of three miles or more. Usually, but not always, the pilot can see the ground. Operating in VFR conditions might also involve flying in the clear above cloud layers - and for the new or inexperienced pilot may be compared to Russian Roulette.

TCA - the acronym for Terminal Control Area. TCAs surround the busiest airports within the U.S. All aircraft flying within TCAs are controlled and separated. Equipment requirements include an encoding altimeter which automatically provides altitude information to the controller. And you may be surprised to know that regulations prohibit student pilots from flying within a TCA.

Chris also asked if helicopters use the same ATC frequencies as fixed wing aircraft. YES, with very few exceptions. The exceptions are found at a few major airports where a specific channel is designated for helicopters.

What is a localizer and ILS?

The ILS or instrument landing system provides a precise glide path and ground track to the runway. Using the ILS the pilot has the capability of flying to the touchdown point without ever seeing the runway. While the capability has existed for many years, it is still not an authorized procedure.

The localizer is the component of the ILS that provides the direction to the runway. Other components of an ILS include a Glide Slope, Marker Beacons, Non-directional Radio Beacons and DME. The marker beacons all operate on 75Mhz while non-directional beacons will be found in the low frequency band between 200 to 400Khz. Usually these NDBs transmit 25 to 100 watts of power although some radiate 2000 watts and may be monitored for several hundred miles or more. The more powerful NDBs often carry transcribed weather information from the local FSS.

What is meaning of altimeter setting?

Altimeters determine elevation by measuring atmospheric pressure, and adjustments must be made to compensate for changes associated with weather

patterns. One point on the altimeter results in a ten foot difference in elevation. Changes from weather patterns can result in altimeter errors of several hundred feet or more. For this reason altimeters are adjusted whenever a new setting is received from the controller or ATIS.

Andy, TX-232 sent a news clipping showing the "Navy Blue Angels" and "Air Force Thunderbirds" together at Dyess AFB in Abilene, Texas. Since they never perform at the same airshow, what brought them together at Dyess? The Blue Angels were making a scheduled fuel stop on their return to home base at Pensacola from an airshow in El Paso. The T-Birds were headed for home at Nellis AFB from Hammond, La but missed their aerial refuelling when their tanker from Dyess failed to depart because of a faulty fuel indicator. For some 30 minutes these famous military teams shared the ramp at Dyess.

During the past month we received a superb listing from Ed, CA-00? Most of the material was compiled from IRAC files but some was provided by Bob Kelty, Editor of California Military Radio Systems. Ed mentions that Navy squadrons move frequently and normal procedure is to leave the base radio in squadron maintenance when leaving for deployment. The next unit moving into that space assumes the radio and pre-set frequency. Therefore VF-124 may be on the frequency in January but VF-154 will be heard on the channel in May or June.

Here is Ed's data for Miramar NAS beginning with Squadron call signs.

Airborne Early Warning Squadrons	VAW-88	Cottonpickers
	VAW-112	Golden Hawks
	VAW-113	Black Eagles
	VAW-115	Liberty Bells
	VAW-116	Sun Kings
	VAW-117	Night Hawks
Composite Squadron	VC-7	
	VC-13	Saints
Fighter Weapons School		Top Gun
Fighter Squadron	VF-1	Wolfpack
	VF-2	Bounty Hunters
	VF-21	Freelancers
	VF-24	Fighting Renegades
	VF-34	
	VF-51	Screaming Eagles
	VF-111	Sundowners
	VF-114	Aardvarks
	VF-121	
	VF-124	Gunfighters
	VF-126	Seahawks
	VF-151	Vigilantes
	VF-161	Chargers
	VF-191	
	VF-211	Checkmates
	VF-213	Black Lions
	VF-301	Devils Disciples
	VF-302	Stallions
Fighter Photo Reconn	VFP-63	Corktips

Aardvark Base	239.7	Old Nick Base	250.2
Black Lion Base	250.2	Golden Hawk Base	250.8
Gunslinger Base	253.1	Top Gun Base	253.8
Bandit Base	275.5	VAQ Squadron Ops	284.5
Bullet Base	291.3	Cyclone Base	299.7
Nickel Base	322.1	Stallion Base	339.5
Inferno Base	344.4	Saint Base	354.7
Renegade Base	361.8	Shooter Base	376.8

ARINC VHF channels listed below are operated by remote control from New York or San Francisco.

128.90	Altoona, Pa	Cleveland	Dallas/Ft Worth
	El Paso	Harrisburg	Las Cruces, NM
	Midland, Tx	Mt Laguna, Ca	New York
	Palm Springs, Ca	Phoenix	Pittsburg
	San Diego	Tucson	Whiteplains
129.35	Chicago	Cincinnatti	Cleveland
	Dayton	Indianapolis	Lexington, Ky
	Louisville	New York	St Louis
	Williamsport, Pa		
129.40	Bangor	Binghamton, NY	Boston
	Brownsville, Tx	Burlington, Vt	Cameron, La
	Escanaba, Mi	Grand Rapids, Mi	Green Bay, Wi
	Miami	New York	Pensacola, Fl
	Portland, Me	Sarasota	Toronto, Ont
	Venice, La		
129.45	Atlanta	Cedar Rapids, Ia	Charleston, SC
	Charlotte, NC	Chicago	Des Moines, Ia
	Lincoln, Ne	McCook, Ne	Moline, Il
	New York	Norfolk, Va	Omaha
	Philadelphia	Raleigh, NC	Roanoke, Va
	Washington, DC		
129.85	Arcata, Ca	Eugene, Or	Medford, Or
	Portland, Or	Redding, Or	Seattle, Wa
130.20	Baltimore	Birmingham, Al	Bryce Canyon, Ut
	Charleston, WV	Dallas/Ft Worth	Denver
	Grand Junction, Co	Green River, Ut	Huntsville, Al
	Knoxville, Tn	La Guardia, NY	Las Vegas, Nv
	Little Rock, Ar	Mt. Potosi, Nv	Memphis, Tn
	Nashville, Tn	New York	Paducah, Ky
	Pueblo, Co	Washington, DC	
130.35	Newark	New York	
130.40	Akron, Oh	Boise, Id	Casper, Wy
	Cleveland	Columbus, Oh	Denver
	Detroit	Elko, Nv	Ely, Nv
130.40 contd	Ft Wayne, In	Idaho Falls, Id	O'Neil, Ne
	Pendleton, Or	Reno, Nv	Rock Springs, Wy
	Sacramento, Ca	Salt Lake City, Ut	San Juan, PR
	San Francisco	Scottsbluff, Ne	South Bend, In
	Toledo, Oh	Tonopah, Nv	Winnemucca, Nv
	Youngstown, Oh		
130.425*	Albany, NY	Colo Springs, Co	Columbia, SC
	Dayton, Oh	Ft Lauderdale, Fl	Ft Myers, Fl
	Hartford, Ct	Huntsville, Al	Lansing, Mi
	Lexington, Ky	Long Beach, Ca	Lubbock, Tx
	Manchester, NH	Monterrey, Ca	New Orleans
	Ontario, Ca	Orlando, Fl	Portland, Me
	Saginaw, Mi	San Jose, Ca	Santa Barbara, Ca
	W Palm Beach, Fl		
130.80	Fresno, Ca	Long Beach, Ca	Los Angeles
	San Jose, Ca	San Francisco	San Diego
	Santa Barbara	Santa Maria, Ca	
131.30	Alamosa, Co	Albuquerque, NM	Farmington, NM
	Garden City, Ks	Kansas City	Las Vegas, Nv
	Los Angeles	Wichita, Ks	Williams, Az
131.65	Amarillo, Tx	Austin, Tx	Chicago
	Corpus Christi, Tx	Dallas/Ft Worth	Houston
	Lubbock, Tx	Oklahoma City, Ok	Peoria, Il
	San Antonio, Tx	St Louis	Tulsa, Ok

AIRCRAFT continued

131.175	Bainbridge, Ga	Ft Lauderdale, Fl	Ft Myers, Fl
	Jackson, Ms	Jacksonville, Fl	Miami
	New Orleans	Orlando, Fl	Shreveport, La
	Tampa, Fl	W Palm Beach, Fl	
131.80	Billings, Mt	Butte, Mt	Chicago
	Grand Forks, ND	Great Falls, Mt	Madison, Wi
	Milwaukee, Wi	Minneapolis	Mobridge, SD
	Mullan Pass, Id	Rapid City, SD	Seattle, Wa
	Sioux Falls, SD	Spokane, Wa	
131.95	San Francisco	Santa Barbara, Ca	

* 130.425 is only used on the ground, not in flight.

Nearly every ARINC VHF channel will be found between 128.775 and 132.00Mhz. Exploring this band you may find other items of interest. While waiting for a flight at Dallas/Ft Worth airport, I found ramp control frequencies used by Delta and American Airlines on 131.275, 130.275 and 129.825. You will find similar operations at all major airports.

Airlines also have assigned frequencies for operations and maintenance, although they are not available to use. Search for these in the same band.

AMATEUR RADIO COMMUNICATIONS

This column is for reporting on amateur radio activities that may be of interest to scanner listeners. Send reports and questions concerning repeater nets, civil emergency systems, packet radio, amateur TV, etc., to:

Gordon West, 2414 College Drive, Costa Mesa, CA 92626

Happy New Year, and it's going to be a year of excitement for the amateur radio service. The Federal Communications Commission has plenty in store for hams in 1990.

The FCC nixed special call signs for hams. What a shame--the FCC could make some real loot by allowing hams to buy back their old call signs, or require new ones. The FCC said it was too much work--and will not allow any organization to take over the license letter assignments.

Is there a $30 license fee on the horizon for ham radio operators? Probably so. Next time you renew your ham radio license, chances are you will be paying a $20-$30 fee.

The new Part 97 rules are now in effect. If you want a copy of them, send me a $5 bill, and I'll ship them off to your First Class mail. No major changes in the rules, other tha clarification on signals and emission designators. It's also interesting to note that the FCC now calls our radio service, the amateur service, not the amateur radio service. Wait until the hams get wind of this--the FCC just took "radio" out of the amateur radio service. I think I am the first to spot this glitch.

No new news on no code, other than it's bound to go through. However, no code test passers will have to take one dilly of a written exam, combining both the Novice and Technician class questions, plus some additional questions about no code. And, when they finally do get their no code license, chances are the UHF privileges won't be all that exciting.

If you're preparing to study for your ham radio ticket, get the Novice license with my Radio Shack course. The Novice license allows you on the worldwide 10-meter band, as well as 2 other bands for VHF repeater operation. The Novice license also allows you 3 additional bands for code. But I know you only want to use voice, so get the Novice license with my Radio Shack course, and I'll hear you on 10 meters, 222 MHz, or 1270 MHz.

The ARRL is planning to take the FCC to court over the loss of 2 MHz of the 220 band. Fancy that--and do you think the ARRL is going to win? I doubt it. It seems to me that the ARRL would better spend their legal money on amateur radio recruitment, rather than trying to save 2 MHz of the 220 MHz band that is gone for good. If we don't get some hams up on 900 MHz, we're going to lose that band, too. And remember, we are only losing 2 MHz of the 220 MHz band, not the entire band. Your Novice privileges from 222.1 to 223.91 MHz remain unchanged.

And here's the latest news from some of our amateur radio column contributors:

#9061, 76 lines from KA6HZF 10/22/89 1:14 am
To: ALL @ ALLUS Re:(B) Hams & Earthquake

R:891021/1211z @:N6CQW.#SOCAL.CA.USA.NA Lakeside, CA #:31238 Z:92040

Saturday 21 October 1989

Hams and Earthquakes

The good news is that the 6.9 event of 17 October epicentered about 75 miles south of San Francisco was NOT the Big One. Indeed, it wasn't even close.

The 'Big One', the event ham radio has been urged to prepare for, as defined by the several planning scenarios (thick books complete with maps, tables and so forth... and available to all), is an earthquake of about 8.3 on with an epicenter much closer to a densely populated metropolitan area. Here in California our preparedness efforts are guided by two principle scenarios, one covering Los Angeles the other for San Francisco (ie, the two largest metropolitan areas on the San Andreas Fault).

(Note: The basic premise in emergency preparedness is to prepare for the Maximum Credible Disaster. By doing so our response to all lesser events are AUTOMATICALLY included as a subset of the overall plan.)

So how did we do? The distance between the emergency communication efforts in the San Francisco Bay area and my location here in Southern California may have generated some false impressions but generally it appears that ham radio did surprisingly well. The biggest surprise was the fact that many of the professional organizations did not appear capable of efficiently utilizing the full range of communication services which Bay Area hams were ready to provide.(!)

The reason for this oddity, assuming I've read the signals right, seems to be the failure of professional response organizations to integrate Amateur Radio's digital communications capability as a normal part of the emergency communication systems; many hams were ready with portable Packet capability which went unused because the organization on the other was strictly voice-only. (Given the scale of the disaster we've been told to prepare for, digital communication is the only mode which has the capacity to move the anticipated volume of traffic in the time allowed. Voice spectrum is a precious resource for vital tactical communications in the immediate post-event period following any disaster and it was sad to hear it being taken up by communications having a lower priority and which might be handled with greater speed and accuracy via Packet.)

Overall, the initial response of Amateur Radio in the wake of the quake was really very good given our numbers. To say that another way, our response was pretty bad -- but was probably the best we could do because we simply didn't have enough PREPARED hams to go around. I know this numbers business is a sore point with many of the older hams but I hope they'll now appreciate why earthquakes are called the 'Come-As-You-Are Disaster.'

The proposed digital license will increase the number of hams, making us better prepared for the next earthquake. In light of the October 17 event perhaps we can get the FCC to fast-track the proposal -- and re-think the Condor portion of 220. In the same vein, Fried Heyn, WA6WZO, ARRL Director of the Southwestern Division (ie, Southern California) and Rod Stafford, KB6ZV, ARRL Director of the Pacific Division (ie, Northern California) were two of the six ARRL directors who voted AGAINST the new license. I wonder if their views have changed?

[*Richter Magnitude Scale -- An instrumental reading of ground MOTION which allows the calculation of the ENERGY released by a seismic event. It's important to note that the relationship between the energy release and the measured motion (ie, on the Richter Scale) of an earthquake is about 32 to 1, ie, a Richter 7.0 represents a 32-fold increase in energy release over a Richter 6.0. In plain language that means the October 17 event was about the size of the event we've been told to plan for.]

[Note to any ham in Santa Clara county (Silicon Gulch) and the Sunnyvale/Alviso area: I am especially interested in the performance of tilt-up structures in areas prone to liquifaction. The street address or Thomas Bros. map reference of any such structure which suffered damage would be greatly appreciated.]

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73 - Bob Hoover KA6HZF @ N6CQW.#SOCAL.CA.USA.NA

Columbia Amateur Radio Club

HURRICANE HUGO OPERATIONS SUMMARY

On Wednesday, September 20th, at the request of Bill Bartlett, KC4HTA, Director of Community Services for the Central South Carolina Chapter of the American Red Cross, the Columbia Amateur Radio Club was asked to be put on standby and be ready to activate their emergency net should the need arise.

The local emergency net was activated by Emergency Coordinator Frank Weathersbee, WB4UNK, on Thursday, September 21st at 1400 UTC. The net was established on the club's KC4LB/R 145.43 repeater which serves the Columbia and surrounding area. The Columbia Amateur Radio Club station was activated at the Red Cross under the call of club president Bill Thomas, WF2G/4, and would serve as net control point for the entire weekend. The National Weather Service office at the Columbia Metropolitan Airport also requested that an amateur station be set up at their office. Liaisons were assigned to the State Emergency Preparedness net on 3.993.5 MHz and the South Carolina SSB net on 3.915 MHz. A 440 MHz to 2 meter link was also quickly put into place by Steve Maxwell, KC4HNR, which enabled the Columbia Red Cross to continuously monitor the WB4LET/R 147.27 repeater in Charleston, South Carolina.

At approximately 2300 UTC on Thursday, September 21st the Red Cross opened 11 evacuation shelters in the 5 county area. These shelters were to serve both local evacuees and those traveling inland from the coastal areas. An amateur radio operator with portable 2 meter equipment was assigned to each shelter in order for the Red Cross to keep in constant communication with the shelter staff.

Communications were maintained throughout the night as the hurricane made landfall and swept across the state. Messages were passed to the various shelters coordinating the delivery of food and supplies. Messages were also passed between the outlying areas and the State EPD headquarters. Many areas including the Red Cross building and most shelters lost power during the height of the storm. Fortunately, the Red Cross building has a generator back-up system that automatically comes on line when commercial power fails. When the storm had cleared the area by daybreak on Friday morning, September 22, many of us took our first look outside to assess the damages. Damage in the immediate Columbia area was rather light, with many tree limbs and much debris blown about, and heavy commercial power outages. At approximately 1400 UTC on Friday, 4 amateur radio operators were teamed up with 8 Red Cross volunteers and were dispatched to perform damage assessment in the hardest hit areas of the 5 county area.

The remainder of the weekend was spent handling message traffic for the coordination of supplies and relief efforts throughout the outlying areas. The club station was also able to handle several inquiries via the nets on 7.243 and 3.915 MHz. By the end of the weekend, the demand for amateur radio communications had dropped, as telephone service was back to 100 % in the Columbia area. The Columbia Amateur Radio CLub closed the emergency net on Sunday,

September 25, at 1400 UTC. In all, the club operated the net for 72 continuous hours and over 41 amateurs assisted with communications.

The following amateurs assisted with the Columbia Amateur Radio Club emergency net:

N4AKR	N4BGQ	KA2CUF	KC4EFI
KC4ENS	KA4FBS	WD4FJP	WF2G
WA2GYM	AB4HI	KC4HNR	KC4HNS
K4ICX	AB4ID	KE4VT	KB4IMR
KB4ITS	KC4LB	N4EPQ	AB4MG
AB4MO	N4KIE	WB4NNY	N4QOG
N4QWL	N4TXL	WA3UDH	N4WLJ
WA3ZSK	WB4UNK	N4VHQ	N4VNG
N4VNF	N4VVG	K4VMG	N4WR
KK4DZ	N4SSX	KK4NH	WB4UNA
KK4UX	KI4JK	KJ4JO	KC4KIF

BEGINNER'S CORNER

If you are new to monitoring or have a question about something you don't understand, please write to me at the address given below, and I'll try to answer you. When posible, your questions and answers will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Edward Gleason, 2513 Bucida Drive, Sarasota, FL 34232

Hello readers and Happy New Year to you all! (Although it's probably still December when most of you are reading this.) Welcome to the January, 1990 BEGINNER'S CORNER column. I hope everyone is enjoying the holidays and has a prosperous New Year. I am sorry to report that it will be next month before I have something to report on the Listener Information Exchange proposal. When I mentioned this previously, I referred to it as a Tape exchange program. This is being changed to an information exchange between members using the information I will be collecting next month. The name change comes about because of possible legal restrictions of which I was previously unaware.

Moving right along, I've been noticing through reader mail a need for a more thorough discussion of Frequency Information than in previous columns. Byron in Southern California inquired about Private Security company frequencies in his area, while Dallas in Utah asked about local frequencies in his area carrying television broadcasts. Other readers have asked about frequencies in the past and I have sent them any information I had available pertaining to their local areas. In many cases I obtained frequencies for their area using the "Betty Bearcat Frequency Directory." Although not the most up to date listing available (as a matter of fact, much of the data contained in this directory is terribly dated), it does serve a purpose. If I remember correctly, I obtained my copy for an additional $3 at the time I purchased my Uniden BC 205XLT from Scanner World USA.

Many times you'll find that someone will respond to your request for local frequencies when you advertise what you are looking for in the RCMA Newsletter Information Wanted column. Some members may have a copy of the FCC Microfiche for your area and forward this information to you. (I will discuss the FCC Microfiche later on in this column.) There is also the frequency search service HEALD, I mentioned in my November column. If anyone has tried this service, please write to me with the details as I'm anxious to find out how it works and what the costs are so I can pass it along to the membership. Also, if anyone out there knows of any other similar services or methods to obtain frequencies, PLEASE write to me so that I may pass it along to our readers.

The following frequency directories can be purchased through the vendors listed:

*Betty Bearcat Frequency Directory (Eastern/Western Editions)
Monitor America
Air Scan Directory
Rail Scan Directory
**Police Call

All these frequencies are available from Scanner World USA (518) 436-9606.

** Police Call can also be purchased from your local Radio Shack dealer.

* Betty Bearcat Frequency Directories can also be purchased directly through Uniden at (317) 845-7659. (Please beware that the date of the material I copied this number from is 1985 and I'm not sure whether it is still used.)

There is another source for frequencies, unequivocal by the above standards. The FCC data files on microfiche are available through NTIS however, I lost the address! Please, someone send me the address so that I can print it for everyone! I am also vaguely aware of other sources of frequency information and would appreciate anyone knowing one to write to me with details so that I can let everybody know. (When you write to me, please remember to include your membership number if you want credit for your topic in the column.)

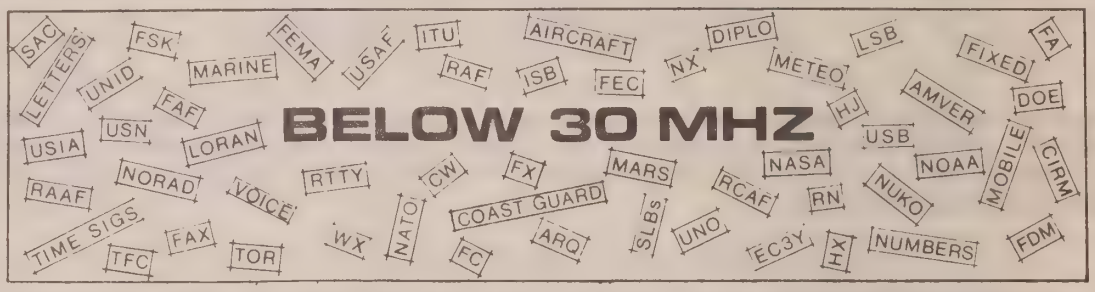
Obviously all us hobbyists still like to SEARCH out unknown frequencies on our own. Next month I

will print a frequency allocation table. This will give everyone some limits to program into their SEARCH BANKS based on what they are interested in listening to by user groups. I'm not sure how up-to-date or accurate it will be, however I am sure that it will serve our purposes.

Changing the topic a little, there are two new books out at the time of this writing, Bob Grove's SCANNER AND SHORTWAVE Answer Book and The Citizen's Guide to Scanning by Bob Kay. Not having read either of these books I can't give you any specifics, however, I suspect that they will answer a lot of questions and offer keen insights into the hobby. As many of you know, Bob Grove is the publisher of Monitoring Times and for those of you who don't know, Bob Kay has a monthly column in Monitoring Times called, The Scanning Report. I'm sure readers will find these books helpful. If someone reads one of these books, send along a review, and we'll put it in the column.

Mike Huth, IL-438 wrote alerting me to Metrowest an Illinois company that sells products for "the Hand-Held Scanner Enthusiast." Mike sent along a copy of their catalog which can be obtained by writing to: Metrowest 822 N. Spring La Grange Park, IL 60525. Or you can call (708) 354-2124.

I am going to close with a point made by Scott, GA-005, and that is that we are all Beginners - in one sense or another. Don't be afraid to ask question because the only stupid question is the one you are afraid to ask. So let's hear those questions. If I don't know the answer I'll make every effort to find it. See you next month!



This column is for HF AM, CW, SSB, RTTY and FAX reception reports, notes, articles, and questions related to HF utilities. Services covered in this column include aeronautical, coastal/marine, weather, government, military and 'spy' stations—essentially everything except broadcasting, CB and amateur radio. Send reports to:

Hugh Stegman, 4354 Coolidge Ave, Los Angeles, CA 90066

Never a dull moment...

The huge amount of traffic resulting from hurricane Hugo was just clearing out in mid-October, when hurricane Jerry came out of nowhere to hit Galveston. Most of the same nets activated all over again. Here, I finally heard some hurricane aircraft on 13267 kHz, including one that sounded like "Gull 14" (53rd Weather Recon Squadron, Keesler AFB, MS). In fact, much of the good hurricane comm was on low VHF, and was audible in L.A. via F2 skip. I'll have to send a log to the LBS column.

After about 2 days of light traffic, Jerry was pretty much over, and I turned on the world series from San Francisco. There was no game...

Following the quake of 18 October, I first thought I'd make a full log of the health and welfare communication. However, as I look back over the hundreds of loggings, I think it's simpler to note that the entire 40 and 20 meter amateur voice bands were pretty well taken over. Highlights were Red Cross on 7228.5 LSB, and Salvation Army on 14270 USB. Also, a news broadcast showed a CAP radio op guarding 4505 kHz for any emergencies. US Coast Guard and FEMA were also active.

Now it is November. The world is coming through, on frequencies 3 to 60 MHz, sometimes all at once. I hoped I could turn off the radics long enough to get out a "Below 30 MHz." However, there has been an earthquake near Japan, and a mass evacuation. Traffic is already picking up.....

More SAC strangeness:

Got a phone call from Rick (CA-LA-544), with a report of another SAC inflight emergency on 4 October (UTC). A bomber was on 6761 kHz with a report that he was dumping fuel and returning to base. By the time I heard anything, the emergency (or drill?) was over. However,

there were stations using real or fake U.S. Navy callsigns, one in AM rather than USB voice, and a lot of weird non-SAC activity on the frequency. Rick notes that, at one point, one of these stations had been advised to ID or fighters would be scrambled with orders to shoot. This might have been another one of SAC's bizarre exercises, in which the radio ops get a real taste of the unexpected, such as the lover's quarrel I once monitored. In any event, things have been routine ever since.

More Grunge Beach:

HF's outer shore brought another letter from Chuck (IL-141), who was puzzled by my reference to his having heard "bootleg mobile phone systems" on frequencies above 10 meters. Thus I searched back through my records to see what he'd really come up with. Turns out it's a pirate mobile telephone system on 30.225, completely unauthorized, and possibly in California. Chuck also hears a lot of what he calls "whistlers" on frequencies from 29.615 (inside the ham band) to at least 31 MHz. Spanish is spoken on these radiotelephones, which whistle an idle tone when not in use. Chuck notes (in another radio publication) that these are legal systems owned by large hotels.

More maritime telcom:

Things have finally died down enough to run more of the large contribution from Brian (CA-SD-073). Here are the frequencies used by AT&T's coastal station in New Jersey:

AT&T COAST STATION WOO P.O. Box 550, Beach Ave, Manahawkin, New Jersey 08050 USA (Technical info (609) 597-2201 (Collect))

Channel	Coast fq	Ship fq	tfc/wx?
(distress)	2182.0	2182.0	-
242	2450.0	2366.0	-
232	2558.0	2166.0	-
422	4422.5	4128.1	-
416	4403.9	4109.5	-
411	4388.4	4094.0	yes
410	4385.3	4090.9	yes
826	8796.4	8272.5	yes
815	8762.3	8238.4	yes
811	8749.9	8226.0	yes
808	8740.6	8216.7	-
1228	13184.5	12413.7	-
1211	13131.8	12361.0	-
1210	13128.7	12357.9	-
1203	13107.0	12336.2	-
1631	17325.9	16553.0	-
1626	17310.4	16537.5	-
1620	17291.8	16518.9	-
1605	17245.3	16472.4	-
2210	22623.9	22027.9	-
2205	22608.4	22012.4	-
2201	22596.0	22000.0	-
2236	22704.5	22108.5	-

Traffic lists are sent at 0000 UTC and every 2 hours thereafter. National Weather Service forecasts are at 1200 and 2200. Neither will be sent if the channel is busy. All traffic is USB or R3E (USB with a -18 dB carrier, for easier tuning or PLL detection).

By the way, there seems to be confusion over the exact locations of these stations. This is because the transmitting and receiving sites are separated by many miles to prevent interference. We are talking about huge antenna farms here, and anyway a cavity resonator for 2.5 MHz would look like the inside of an oil tanker. Also, the stations have P.O. boxes that might not be near either site. Finally, the stations ID with the nearest major city. Thus we have KMI, with receivers on Point Reyes, transmitters well inland in Dixon, a mailing address in Inverness, and the ID of "San Francisco Radio." Makes as much sense as the Los Angeles Rams in Anaheim.

More high freqs:

I'm listening to Honolulu Radio working at least 10 aircraft out over the Pacific as I write this part. I've never heard it so busy, or so clearly, or on so high a freq. They're using the ARINC channel of 21964 kHz for ATC. Now we know it's a solar peak!

Return of Logging Conventions:

Haven't run these abbreviations in over a year. They save a lot of space, and everyone understands them. Note that languages are often designated by their first letter twice (EE, SS, FF, etc). This is not perfect (GG could be German or Greek, and what do you do with Serbo-Croatian?), but it works most of the time. Thus a Spanish-speaking female on the phone would be SS/YL/telcom. Here goes:

a/c	Aircraft	BC	Broadcast
clg	calling	COMMSTA	Communication station
CQ	"Calling anyone..."	CW	Morse code
DE	"From..."	foxes	"Quick brown fox.." test
FSK	Frequency Shift Keying	ID	Station identification
LL	Landline ("lima lima")	METEO	Coded weather info
mkr	Channel marker	MM	Maritime mobile
MPX	Multiplex	mx	Music
nx	News (RTTY or SWBC)	OM	Male voice (Old Man!)
QRA	"This is..."	QRM	Interference
QRN	Atmospheric noise	QRT	Sudden transmission end
QRU?	"Any traffic for me?"	QSB	Fading
QSX	"Listening on..."	QSY	Station changed freq
QTC	Numbered message traffic	SAM	Special Air Mission
SELCAL	Automatic calling tones	sked	Scheduled traffic
sx	Simplex	telcom	Telephone call traffic
tfc	Message traffic	tx	Transmitter, talk
T=0	CW stn using "cut" zero	unid	Unidentified
UTC	Coordinated Universal Time	-->	**(you WILL log in UTC!)**
wkg	Working	wx	Weather information
YL	Female (Young Lady!)	#	Numbers transmission
4F	4 number groups	5F	5 number groups
-L	- letter groups	//	Parallel simulcast

That's all the room this month. Happy holidays, and 73!

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor listening and questions to:

Rob Berezowski, 50 Newstead Ave, Regina, Saskatchewan, Canada S4X 1H2

Christmas Greetings everyone, and I hope you all have a Happy New Year. I neglected to include this in last month's column, so here they are, better late than never. It seems appropriate that I am writing Christmas greetings at this time because the weather forecast is for our first snowfall tonight.

Time to get to some letters that are gathering some dust. The first one this month comes from Bruce (CANA-019). He sent in a few newspaper clippings on various subjects. Several of the clippings dealt with the new OPP radio network. The price tag for the network has quadrupled since 1980 to $107 million. The articles state that, as I've reported before, the new OPP network is on the air in the London district (Oxford, Elgin, and Middlesex counties), and scheduled for service in the Toronto area by December 89. I have not heard if the new system is working in any district other than London. Bruce passed along the following unconfirmed frequencies for the new network:

OPP London	Simplex (OPP Common)		140.970
	Repeatered (Ont Police Comm. Common)	142.770 /	138.750in
	"	143.160 /	139.140in
	"	143.330 /	139.440in

The new OPP radio network is a trunked radio system, and uses a idle channel marker that is transmitted over one of the trunked radio channels when the system is idle. The OPP system, like all trunked radio systems, uses several radio channels controlled by computer. Each mobile radio is microprocessor controlled, interfacing with the main network system controller. The mobile radio searches for the idle marker and locks the radio onto that channel. Whenever an officer presses his RTT (Request to Talk) button, the controller automatically assigns this channel for the voice conversation. The computer will, based on the wishes of the dispatcher, select any number of cars to be included in on the conversation. The idle channel marker moves on to the next sequential channel, and all cars not involved in the conversation automatically move to this channel.

That all works well for the officer because the radio is quiet unless he or she is directly involved in the conversation. The problem for monitoring is that the next conversation will take place on the channel with the idle marker, so scanner listeners must endure this idle marker. It will effectively tie up your scanner. Bruce has heard a rumour that someone in Toronto has devised a solution to the problem. I have not heard of anything, but there are dealers who sell filters for the Metro Toronto Police idle channel markers.

The Toronto Star reports on April 8/88 that a fair number of the Metro Toronto Police Force car batteries are going dead because of all the electronics in them. The Force recently installed computer MDT (Mobile Data Terminal) equipment, and adding that power drain with the radios, lights and whatever else, one can see how a battery can be drained supplying all of this load while the engine is not running. While reporting on a murder, Toronto Star reporters watched police officers jump start three cruisers. The Force already uses heavy duty batteries.

Another article from the Toronto Star discusses the International Maritime Satellite Organization (INMARSAT) network, a system allowing voice and data transmission to and from ships anywhere in the world. It seems INMARSAT is planning to expand its services to include service to aircraft, land vehicles, and eventually global paging. The INMARSAT service to land vehicles will, if implemented, directly compete with the proposed MSAT (Mobile Satellite) system being developed by Telesat Canada subsidiary Telesat Mobile Inc (TMI) in conjunction with a consortium of American firms providing the same service. (The name of the consortium escapes me at the moment. -rb)

Thanks a lot for the information Bruce. I hope we'll hear from you again soon.

My next letter comes from anonymous in Mass. The member picked up some VHF High band skip from Canada. I'm not sure if this should go in the Low Band Skip column, but at the risk of stepping on a few toes, I'm going to put in my column because it is information on Canadian systems:

Weymouth, Bigney Neck, Tiverton, Freeport, Westport, Nova Scotia	
Fire Depts, (also EMO) tone alerted by "Emergency Dispatch"	154.160
Unidentified Nova Scotia Fire Dept (same dispatcher)	154.430
Fredericton, Westfield, St Johns, Hampton New Brunswick RCMP	155.820
Grant Harbour, New Brunswick RCMP	155.880

Our anonymous member has also asked if I may run some frequencies in use in Regina. I ran a list several years ago, so it's time to bring everyone up to date. I'll start with the Regina Police radio codes, and then the frequency list. Therefore, from yours truly:

REGINA POLICE SERVICE RADIO CODES

9-00 Assault	9-25 Escort
9-01 Bomb Threat	9-26 Fight
9-02 Break and Enter	9-27 Drunk & Disorderly
9-04 Drugs/Narcotics	9-30 Found Property
9-05 Fraud	9-31 Missing Person
9-06 Homocide	9-32 Insecure Premises
9-07 Impaired Driver	9-33 Peeping Tom
9-08 Obscene / Threatening Calls	9-34 Sudden Death
9-09 Armed Robbery	9-35 Suicide
9-10 Rape / Sexual Offence	9-36 Suspicious Person

9-11 Theft	9-37 Suspicious Vehicle
9-12 Threats	9-38 Drunk Person
9-13 Weapons Complaint	9-39 Miscellaneous / Unknown
9-14 Damage to Property	9-50 Industrial Accident - Injury
9-15 Arson	9-51 Traffic Accident - Injury
9-16 Child Abuse ?	9-52 Traffic Accident - No Injury
9-18-1 Mental Patient	9-53 Hit and Run
9-20 Alarm	9-55 Dangerous Driving
9-21 Armed Confrontation	9-56 Parking Complaint
9-22 Disturbance	9-57 Dog Complaint
9-23 Domestic Dispute	9-58 Noise Complaint

10-1 In Service	10-12 Unauthorized Listener Present
10-2 Out of Service	10-14 Checking Person/Vehicle
10-3 Off the Air (Investigation)	10-20 Vehicle Owner Information
10-4 Message Received	10-25 Danger/Caution (V,S,M,E,F)
10-5 Location	10-30 CPIC/NCIC Check
10-6 At Scene	10-31 Subject Wanted (Warrant)
10-10 Radio Emergency Alarm	10-32 Subject Negative
10-11 Cancel Present Call ?	10-33 Subject Outstanding

Notes: 1. If any of the above codes are followed by a 0, this means the crime is in progress (eg. 9-020 B & E in Progress).

2. F = Firearms
   V = Violence
   S = Suicidal
   E = Escapee
   M = Mental

REGINA REGION FREQUENCY LIST

Regina Police Service	Ch 1	Dispatch	413.0125	/ 418.0125in
	2	Records "200" (CPIC)	413.1625	/ 418.1625in
	3	Records "300" (CPIC)	413.4125	/ 418.4125in
	4	Tactical	413.5875	/ 418.5875in
	5	Car-to-Car / Parking	413.7875	/ 418.7875in
	6	Surveillance	413.8625	(S)
	7	Surveillance (DVP)	413.3375	/ 418.3375in
Regina Fire Dept	Ch 1	Dispatch/Enroute	155.220	/ 155.850in
	2	Tactical/Firehall Link	155.970	(S)
	3	Administration	155.895	/ 156.225in
		Pager	155.895	
		Vigilance Alarm System	469.9625	(S)
Regina Emergency Measures Organization			149.525	/ 148.685in
			149.495	(S)
			27.800	(S)
			462.950	(S)
RCMP F Div (Sask)	Ch 1	Dispatch Repeaters	155.430	/ 154.370in
	2	" "	155.580	/ 154.890in
	3	" "	155.700	/ 154.950in
	4	" "	155.640	/ 154.830in
	5	" "	156.030	/ 155.070in
	6	" "	155.610	/ 155.040in
	7	" "	155.340	/ 154.620in
	8	Detectives	156.240	/ 154.040in
	9	Local (Car-to-Car)		155.670(S)
	10	Detectives (GIS, Drugs)		155.460(S)
	11	" (NCIS)		155.310(S)
	12	(Phased out)	155.430	/ 154.800in
	13	" "	155.640	/ 155.040in
Depot Div	Ch 5	Operations		155.130(S)
		Driver/Radio Training	155.490	/ 154.800in
Regina Ambulance (RAMRAD)		Dispatch/Operations		158.760(S)
		UHF Extenders	454.8625	/ 459.8625
		" "	454.8875	/ 459.8875
Regina General Hospital		Pager		458.4625
		Security		173.550
Pasqua Hospital		Pager		458.4625
Plains Health Centre		Pager		458.4625
		"		149.020
Weatheradio Canada (Lumsden Transmitter)				162.550
Department of Communications (DOC)				149.080
Bank of Canada				151.055

CANADA continued

Ministry of Transport (MOT)	Ch 1	Airport Ops	460.200	/ 465.2125in
	2	Airport Fire	460.3375	/ 465.3375in
Canada Post Corp.	Priority Post Courier			469.2875
SaskTel Provincial Mobile Radio Network	Ch 1		138.555	/ 142.665in
	2		138.465	/ 142.245in
	3		138.615	/ 142.215in
	4		138.585	/ 142.275in
	5		138.675	/ 142.455in
	6			139.500(S)
Regina General Mobile Telephone Service	JL		152.510	/ 157.770in
	YS		152.720	/ 157.980in
	JK		152.780	/ 158.040in
Regina Autophone Mobile Telephone	XL		152.555	/ 157.815in
	XS		152.645	/ 157.905in
	XY		152.825	/ 158.085in
Pagecall (Province wide system)				149.770
Sask Power Corp Provincial Radio Network	Ch 1		139.290	/ 141.750in
	2		139.260	/ 141.720in
	3		139.200	/ 141.690in
	4		139.170	/ 141.660in
	5		139.140	/ 141.630in
	6		139.110	/ 141.600in
	7		139.080	/ 141.570in
	8			140.400(S)
	9			140.310(S)
Sask Highways Provincial Radio Network	Ch 1		166.830	/ 167.400in
	2		166.860	/ 167.430in
	3		166.890	/ 167.850in
	Simplex			168.030(S)
Highway Traffic Board				157.290(S)
Sask Parks & Renewable Resources	Buffalo Pound		163.110	/ 164.130in
	McLean		163.560	/ 162.720in
Sask Centre of the Performing Arts				464.0625
Sask Handicapped Transport				172.710(S)
Sask Corrections - Regina Remand Centre				156.090(S)
University of Regina Physical Plant / Security			456.700	/ 451.200in
Sask Dept of Supplies & Services Mail Delivery				170.430(S)
City of Regina Public Works / Engineering			157.080	/ 156.120in
			157.110	/ 156.270in
			157.200	/ 156.360in
Wascana Park Authority	Security / Operations		156.000	/ 155.280in
Regina Transit Service	Ch 1	Operations	460.300	/ 465.3125in
	2		460.125	/ 465.1375in
	3	Bus to Bus	460.175	/ 465.1875in
CKRM AM Radio News				152.990(S)
CKCK TV Photographers				153.110(S)
CKCK AM Radio Reporters				462.450(S)
CJME / Z-99 News Reporters / Cue				153.350(S)
Mobile Broadcasts				455.9375
CBC TV News Photographers / Reporters			450.7125	/ 455.7125in
Pager				450.0125
Regina Leader Post Photographers (on Mottorola Trunked 800 MHz)				
			858.2375	/ 813.2375in
			858.4875	/ 813.4875in
			858.7375	/ 813.7375in
			858.9875	/ 813.9875in
			859.2375	/ 814.2375in

I have more frequencies, but the rest are mostly businesses, and I'll print those in the near future. That's it for this month. Until next time, best wishes.

Want to Get Your Newsletter 1st Class?

Getting your RCMA Newsletter mailed 1st class may be your answer if you have consistently slow or erratic service with 3rd class mailing. 1st class costs a lot more—that's why we use 3rd to begin with—but if you can spend the greater amount, here's how:

Check your mailing label for the number of months left on your current membership. (If it says 10/89, for example and you are reading this in June, then there are 3 months remaining.) Multiply the number of months by the amount of 88 cents. Make out a check or M.O. for that amount to RCMA, Inc. Send to: RCMA General Manager, P. O. Box 542, Silverado, CA 92676. Mail it with enough time to allow its delivery before the end of the month.

COASTAL and INLAND WATERWAYS

This column is for VHF-FM band and related HF frequencies, information, articles, and questions that relate to coastal and inland waterways radio communication. This includes private, commercial, and Coast Guard to civilian vessel communications. It also includes private business and government frequencies that depend on or are related to the activities of surface craft, though these frequencies may also go in the Commercial Communications, Below 30 MHz, and Federal Government and Military columns as appropriate. Harbor Patrol and firefighting frequencies are welcome here and in the Public Safety columns. Coast Guard freqs other than those used to communicate with civilian vessels must go in the Federal Government and Military column.

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your Coastal and Inland Waterways column for January 1990.

Happy New Year - I hope that everyone is ok and will have a great year with good health and great scanning.

Our file is empty - Information is badly needed for the continued running of this column.

I recently got a scanner holder for my pro-34 scanner from Curtis Harbin our new products editor. It is made by motorola and fits my scanner like a dream. It is much better than the scanner sack Radio Shack sells,which I also have. Curtis also has antennas to fit your individual monitoring needs. Drop Curtis a line and get his scanner product accessories list. I used my holder the other day on the piers and it was great. He has accessories that you can't find other places and being a RCMA Column Editor, he has the expert knowldege to help you. In scanning the marine band and going outside with your scanner, any good scanner aid will result in better scanning.

Any of you out there that have federal bases near you on the water just may be in luck. Here in the Norfolk area we have the Norfolk Navy Base and the Norfolk Naval Shipyard (Portsmouth,Va.) both on the water. Now they also have patrol boats. The Naval Base has as many as 4 boats while the shipyard has as many as 2 boats. These boats can be heard warning other boats away from the bases on VHF marine frequencies and talking to their bases on the regular navy channels. Also the Army base at Fort Eustis (Newport News,Va.) is a transportation center and uses everything from tugs to cargo ships to hovercraft. Langley Air Force Base (Hampton,Va.) also uses air-sea rescue boats. So just about any federal agency near water probably has VHF marine radio useage. They operate on their Federal channels and also on VHF marine channels. It is a vast new field to listen to and learn from.

Another place to hear new things on the marine band is around commercial fishing grounds. Some of the fishing fleets use spotter airplanes to find fish and they report back the the boats on the marine band frequencies telling the boats where the fish are.

In addition to the above, most states have marine patrols that patrol state waters and enforce state laws. In addition to these patrols the states also have commercial fishing patrols that go out and check commercial fishing & crabing boats to make sure that they are not catching fish to small or crabs or oysters that are under size or have caught more than they are allowed by law.

I just purchased a new scanner (Radio Shack #2005). The reason being that it covers the 200-300 mhz. band also,which includes lots of military and Coast Guard frequencies. In addition it covers the 800 mc. band. Our local police departments have just switched to the new 800 mc. band. As far as I am concerned I liked the old system better since you have to scan all channels of the new system to keep up with what you are listening to since it is no longer on one channel but the computer/control channel selects the channel that it will use for every transmission. I hope that the marine band will never switch to this style of transmissions.

The future of the Marine Band will be expanding from Voice FM and SSB to fax and computor/digital uses to satellite and other interesting devices that we may have not even heard about yet.

At this time I am awaiting my new FCC Microfiche that will let me complete the Marine Frequency Profiles. The profiles will be by state and will be free to whoever requests them. Just let me have a month or two to complete them.

I would like to ask for the following information from you out there concerning your area and other areas you know about.

1> List of Pilots and all available facts.
2> List of Ferry Boats and all available facts.
3> List of Tug Boats and all available facts.
4> List of Fire Boats and all available facts.
5> List of Police and Marine Patrol Boats and all available facts.
6> List of Commercial Vessels and all available facts.
7> List of Government Vessels/Bases and all available facts.
8> A Marine Profile of your area with any facts you know that we can expand on.
9> Names and addresses of marine related agancies and organizations that we can contact for further information on their specialities.
10> Any type of information concerning Marine Radio usage.
11> HELP!!!!!!
12> Thank you.

What I would like to do is to have a column each month on a different useage of the marine community in addition to the regular reader input. But this depends on your input concerning your individual areas. I might be able to look up some facts in the FCC files but I cannot have a working knowldege of your area without you acting as my guide. But just remember that your tour of your area is not just for me but for all of the RCMA members that read this column.

I have had a problem with the mail in the past but now I think that it has been corrected. There is probably mail that I have not receied,and I am sorry,but starting as of this column I will respond as soon as material is received to advise you that it has been received. I know that I am not the best to respond to your requests but that is now being concentrated on to improve it.

Well thats it for this month. Next month lets get back to sharing information like we are supposed to.

See you next month - Send in information.

COMMERCIAL COMMUNICATIONS (and Municipal Utility Companies)

This column is for reporting frequency and radio system information for the following commercial communications: businesses, forest products, petroleum industry, special industrial, manufacturers, motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.) and all school & college related frequencies.

Send monitoring information to:
Cliff Polkinghorn, 286 Greenhouse, #216, San Leandro, CA 94579

Welcome to this issue of Commercial Communications. We have two (2) contributions this month. Thank you all very much.

FROM UNKNOWN TEXAS MEMBER (TX-???)
NORTH DALLAS AREA:

464.6875	REPEATER CHANNNEL 1 (COLLIN CREEK MALL SECURITY)	PLANO- TEXAS
467.000	TAXI	PLANO- TEXAS

173.225	SIMPLEX CHANNEL 1 *	
173.275	SOMPLEX CHANNEL 2 *	
	* = COMPANY CALLED VICTOR DUNCAN WHICH RENTS TO FILM & VIDEO USERS IN THE DALLAS / FORT WORTH AREA	
173.325	SIMPLEX CHANNEL 1 **	
173.375	SIMPLEX CAHANEL 2 **	
	**= COMPANY CALLED COMMUNICATIONS COMPLEX IN IRVING TEXAS	
855.5125	TELECABLE REPAIR CREWS	PLANA TEXAS
155.205	SIMPLEX CH-1 PLANO SCHOOL BUSES	PLANO TEXAS
48.00	SIMPLEX CH-1 LONE STAR GAS	PLANO TEXAS
48.44	SIMPLEX CH-2 LONE STAR GAS	PLANO TEXAS
37.54	T.V. ELECTRIC	PLANO TEXAS
451.350	RPTR CH-1 GTE	PLANO TEXAS
482.6125	RPTR CH-1 TEXAS CHRISTIAN UNIV. SEC.	
484.1625	RPTR CH-1 TEXAS CHRISTIAN UNIV. MAINT.	
464.575	RPTR COLLIN COUNTY COMMUNITY COLLEGE	PLANO TEXAS
461.675	RPTR SECURITY COMPANY (UNKNOWN)	DALLAS TEXAS
463.250	PLANO STAR COURIER	
460.8875	RPTR WENDY'S RESTURANT	
37.50	SIMPLEX TV. ELECTRIC	MCKINNEY & ALLEN AREAS
37.68	SIMPLEX TV. ELECTRIC	GARLAND AREA

FROM ROGER WEST (MN-052)

151.985/158.340	KNCH 690	AMERY TELEPHONE CO.	WISCONSIN
151.985/158.340	WXP 256	CLEAR LAKE TELEPHONE CO.	WISCONSIN
153.470	KNAH 691	NEW RICHMOND NATURAL GAS INC.	WISCONSIN
153.485	KSB 677	NORTHERN STATES POWER CO.	EAU CLAIRE
153.485	KSC 747	NORTHERN STATES POWER CO.	MENO
153.485	KVV 516	NORTHERN STATES POWER CO.	ST. CROIX
153.500	KNCV 424	NORTHERN STATES POWER CO.	MLPS. MN.
153.500	KNHM 507	NORTHERN STATES POWER CO.	ST. CROIX
153.500	KSB-612	NORTHERN STATES POWER CO.	RICE LAKE
153.500	KSB 677	NORTHERN STATES POWER CO.	EAU CLAIRE
153.500	KSC 725	NORTHERN STATES POWER CO.	AMERY
153.500	KSC 747	NORTHERN STATES POWER CO.	MENO
153.500	KSC 748	NORTHERN STATES POWER CO.	HUDSON
153.515	KDD 815	EAST CENTRAL ELECTRIC	LINDSTROM
154.464	WGR 578	DAIRYLAND POWER COOP	FREDERIC
158.220	KNHP 446	NORTHERN STATES POWER	ST. CROIX
158.220	KSC 725	NORTHERN STATES POWER	AMERY
158.220	KSC 748	NORTHERN STATES POWER	HUDSON
158.220	KUI 312	NORTHERN STATES POWER	RICE LAKE
158.325	KFJ 22	EAST CENTRAL ELECTRIC	RUSH CITY
173.204	WIM 53	MINNEGASCO	GOLD VALLEY
173.204	WIM 53	MINNEGASCO	MOUND
451.100/456.100	KLU 984	NORTHERN STATES POWER	NO. BRANCH
451.225/456.225	KYD 615	NORTHERN STATES POWER	ST PAUL PARK
451.275/456.275	KFU 751	ST. CROUIX ELECTRIC	BALDWIN
451.350/456.350	KSJ 292	WISC. TELEPHONE	EAU CLAIRE
451.450/456.450	KNGV 518	AMERY TELEPHONE	AMERY
860.112/815.112	WNAF 867	NORTHERN NATURAL GAS INC.	N. BRANCH
151.775	KNGQ 364	SCHOOL DISTRICT OF HUDSON	WI.
154.540	KKJ 877	SCHOOL DISTRICT OF NO. BRANCH	MN.
155.160	KJL 832	INDEPENDENT SCHOOL DIST. OF NO. BRANCH	
155.205	WXT 575	SCHOOL DIST. # 140 OF TAYLOR FALLS	MN.
155.220	WRD 871	SCHOOL DIST. # 141 OF CHISAGO CITY,	MN.
461.450/466.450	WNBD 855	UNITY SCHOOL DIST. OF MILLTOWN	WI.
463.350/468.450	KNAV 391	CLEAR LAKE SCHOOL DIST. OF CLEAR LAKE	WI.
463.350/468.350	WRH 497	AMERY SCHOOL DIST. OF AMERY	WI.
464.925/469.925	KJS 466	FOREST LAKE MINN. SCHOOL DIST.	
159.540	KYB 800	VALLEY CARTAGE	HUDSON WI.
461.400/466.400	KNHJ 442	FEDERAL EXPRESS	COLFAX WI.
854.612/809.612	WQO 905	FEDERAL EXPRESS	MINNEAPOLIS
856.862/811.862	KNHC 700	FEDERAL EXPRESS	MINNEAPOLIS
857.862/812.862	WNAU 416	FEDERAL EXPRESS	MINNEAPOLIS
152.360/157.620	KNJC 571	ST. CROUIX CAB	STILLWATER
462.000/467.000	WSV 265	R & R CAB	RICE LAKE
464.375/469.375	WYZ 987	VALLEY TAXI INC.	STILLWATER
152.300/157.560	WXN 784	CITYWIDE CAB	ST. PAUL

THANKS ROGER FOR THE FINE WORDS.

THATS ALL FOR THIS MONTH

CLIFF

contact info wanted

This column has two purposes: to help members contact each other, and to help members obtain directly from one another information on various subjects related to two-way communications monitoring. If you would like to meet, converse, or correspond with other members by telephone, letter, or cassette, this column is the place to state your interest. Remember—those who respond will do so directly, so be sure to provide your phone number, the best time to be called, and/or your address. Write to:

Scott Mattson, 2820 Bridge Ave, Point Pleasant, NJ 08742

Requests for copyrighted material or information considered 'sensitive' by RCMA will not be printed in this column.

WANTED: Information on frequencies and codes for the following New York state counties: Tioga, Steuben, Chemung, Schuyler, and Tompkins. Will trade info for same.
JIM OTIS (NY-152) J & J Trailer Park F-8, Fulton, NY 13069

INFO WANTED: Information on how to increase search and scan speed on a Regency MX5000. Will pay postage and copying costs.
TEDDY BABB (TN-Ø52) Route 2 - Box 88, Afton, TN 37616

INFO WANTED: Frequencies, callsigns, and locations wanted for amateur radio repeaters in New York state and Pennsylvania.
W. MEWES (CANA-122) Box 7039, Oakville, Ontario, Canada L6J 6L5

INFO WANTED: Member looking for other members who are Stock Car Racing fans in the MI, OH, IN, IL, and Ontario area to form a frequency pool for short track speedways, drivers. This will also include ARCA, ASA, ACT, ARTGO, Super Late Model Drivers, dirt or pavement, sprints, etc.
MIKE DELANEY (MI-218) 19587 Hickory St., Detroit, MI 48205 or phone (313) 527-8999

INFO WANTED: I am looking for any audio cassette tapes of dispatching during the San Francisco earthquake.
ROBERT STOFFER (CA/OR-026) 916 N. Whitewater Dr., Fullerton, CA 92633

INFO WANTED: I am looking for the frequencies of the South Carolina Electric and Gas Company and any unclassified frequencies for the Charleston, SC Post Office.
LEONARD LaBRASKA, Jr. (SC-Ø41) Apt. 4-B, 9th Ave., Isle of Palms, SC 29451

INFO WANTED: I need a list of codes for the Nassau County fire departments on Long Island. Also need list of codes for the Nassau County police departments. Does anyone know the primary frequencies for the Plainview, Wantagh, and Massapequa fire departments?
LASHAUN CARR (NY-474) 158 Hopper St., Westbury, NY 11590

DIGITAL COMMUNICATIONS & COMPUTER CORNER

Editor: Steve Ryckman
P. O. Box 136
Wadsworth, IL 60083

BBS # 312/872-8086

The Secret Service, Espionage and Voice Scrambling

For the last couple decades, Voice Scrambling has been a vital movie prop for any production about special government agencies, espionage, or mob related activity. In reality however, it has only been feasible and cost effective for a few years.

Simple voice scrambling is not very complicated at all these days, a small board about the size of a business card is all that is required, which opens up the possibilities of scrambling to include portable radios where the units were too large to use before. These simple scrambling units use a process called VFO inversion. In lay-mans terms, the unit converts any audio between 300 and 3000 Hz into a supressed carrier double sideband signal and inverts it with the opposite Hz frequency. For instance, any audio which normally would be heard at 300 Hz, would be transmitted at 3000 Hz and visa versa. If someone talked at the halfway point of 1650 Hz, their voice would be heard as if non-scrambled since the inverse of 1650 would also be 1650. This scrambling method sounds very similar to listening to a sideband radio which is off frequency, and after listening for some time, you may be able to pick out certain words, but it will always remain difficult. Average price is $ 150.00 per radio.

The next level of voice scrambling consists of VFO inversion as well, but adds alot more difficulty to understanding the transmitted audio. This level includes what is called Masking, Notch and Synch. It is easiest to explain all three of these procedures together as they all contribute to the success of the other. These three processes revolve around an imbedded "jamming" code which is randomly selected upon transmitting, which removes an entire portion of the audio range and moves it to another location. The jamming code tells the receiver where this notched audio has been removed from and where it has been placed, so that the audio can be restored to its original content entirely. An example could be that an already inversed signal would have all inversed audio between 800 and 1200 Hz removed and relocated to 3200 through 3600 Hz, which is out of the normal audio scrambling range. Average price is $ 175.00 per radio.

Rolling Code Scrambling is the next level available, which as it's name indicates, revolves around a constantly changing integer. Rolling Code operates much the same as Masking, Notch and Synch; except that the notched audio location is constantly changing. Rolling Code scramblers are capable of over 100 Million differant VFO inversion and Notch combinations, which manufacturers estimate on a busy system would take at least 100 years before a duplication occurs. Average price is $ 250.00 per radio.

The ultimate in scrambling technology at this time is Frequency hopping scramblers. These units not only incorporate a Rolling code scrambler and an ANI (Automatic Numeric Identifier) section, but also are capable of changing the transmit frequency of the radio, WHILE TRANSMITTING. Of course, this would be limited by the type of transceiver you are using, but newer models like the Syntor XX and similar can be programmed to allow this. Along with the Synch codes transmitted for the Rolling code scrambler, frequency selection codes are transmitted so all the receivers know how to follow the signal from one frequency to another as it hops. Since this type of scrambler is dependant on the actual type of radio it is being installed in, prices vary drasticaly from between $ 300.00 and $ 800.00 per radio.

The actual scrambling portion of all these units, simply connect to the radio like a PL board, interupting the audio input shortly after the microphone and interupting the audio ouput before the amplifier. Although they should work fine either way, the manufacturers suggest that if used on a system with PL tones or paging or data transmission that the scrambler be hooked as close to the microphone and audio amplifier section as possible. It is possible that scrambling the tones or data transmission may cause in- consistant results.

I have used a couple of Simple VFO inversion scramblers on my company radio frequency for a couple months now with fantastic results. Being a local security company, we were faced with problems of the teen-age drag racers and other criminal suspects knowing our whereabouts as well as we did, just by listening with a scanner. Now, even though they can still tell that it is us talking on the frequency, they have no idea when we will be getting to their location. Since the prices and size of these simple scrambling units have gotten smaller recently, I imagine you will be hearing it become more popular. Police departments, SWAT groups, Security companies, and maybe even your local

BELOW 30 MHz continued

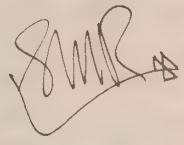
floral delivery van, will be getting them. Almost everyone knows that almost anyone can listen to them nowadays. When the 800 band first was licensed, alot of people moved there because of the privacy, which is now vanished.

I would like to thank everyone who helped both in our own testing of the scramblers, and explaining the technical information to me. I would especially like to thank EJ from Midian Electronics for his expertise and cooperation in helping me get the facts. He points out also, that scramblers are classified under the United States Munitions List (as Arms, Ammunition, or Implements of War) and you require a validated United States Department of State Export License to take any scrambler or de-scrambler device out of the United States.

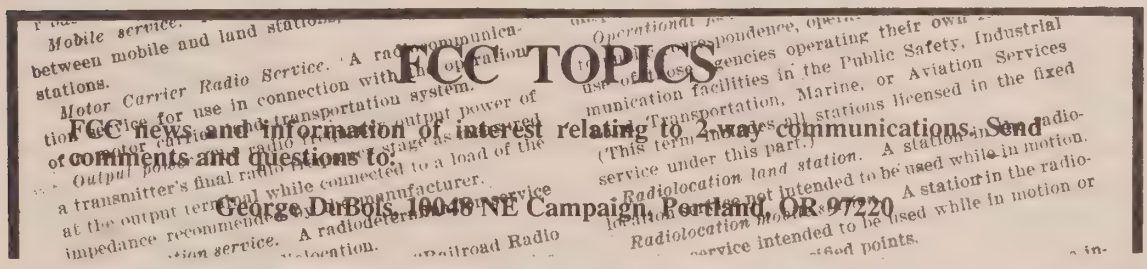
In addition to mobile radio scramblers, several companies now make scramblers for standard and cellular phones. These units simply plug in between the phone and the handset and require a 12volt power source, so it could be moved easily from one phone to another.

Next month we will get back to computers with some guidance for routine maintanence for your machine, as well as information about the newest 25 and 33 Mhz machines.

Catch ya' later.....



WNMT-513 Clear



FCC TOPICS

FCC news and information of interest relating to 2-way communications. Send comments and questions to:

George DuBois, 10048 NE Campaign, Portland, OR 97220

The FCC has taken action that effectively reallocates the T-band (470 to 512 MHz) channels available for mobile telephone use. T-band frequencies are available in the thirteen largest urban areas of the country. 24 channel pairs in these bands are available for common carrier use, although only twelve are available in some cities. Originally allocated in 1970, these channels finally became available for assignment in the late 70's. The plan was that the frequencies would be assigned to applicants filing during a 60-day filing period in each city. The original applicants would design and construct the system, to be shared among the licensees. Later applicants would have to comply with the existing system requirements. This sharing requirement was probably just one of the reasons little interest was shown in these channels, besides the promise of cellular telephone on the horizon. Few applications were ever made and even fewer systems were ever built. And with the implementation of cellular service at 800 MHz, loading on the few active T-band systems started a decline in subscribership that still continues.

The Commission had considered a number of alternatives to either stimulate use of these frequencies (including allowing exclusive use by single licensees) or to allow their use for other purposes, such as paging (as was recently allowed on the 152 and 454 MHz frequencies). But they concluded that the decline in demand for conventional (VHF and UHF) mobile telephone service will continue, with most future need met by the Cellular Radiotelephone Service. They also declined to allocate these channels for paging use, since a more-than-adequate number of frequencies have been made available for paging in the last decade or so. Besides the old low-band mobile telephone channels, there are the forty channels at 931 - 932 MHz allocated in 1982, the conventional VHF and UHF mobile telephone channels (p. 29, July newsletter) and auxiliary use of Cellular frequencies, allowed since late 1988.

The comments of interested parties in this proceeding all indicated that there is a severe shortage of frequencies available for control links by common carriers. Such links are used instead of telephone links to remote transmitters and, in the case of multiple transmitters on the same frequency, is the only practical method of linking sites in a simulcasting system. A simulcasting system not only requires phase correlated transmitters, but stable audio input paths as well. There are a handful of frequencies available for such use at 929/956 MHz and at 1.8 GHz. There are also channels in the 72 MHz band (unidirectional only) and in the recently allocated 932/941 MHz fixed bands - but demand for these channels is expected to be high from other services. Therefore, the Commission is reallocating those T-band channels not currently being used, for omnidirectional fixed service by common carriers. Existing mobile telephone systems will be allowed continued operation, but as their loading decreases they will be expected to relinquish unneeded channels, which will then be made available for fixed, multipoint use. The term "multipoint" means that the control station must transmit to at least four points. After five years, the Commission will review usage of these frequencies by common carriers and if it appears that many channels are not being used, may reallocate them to other services.

An exception to all this is the Los Angeles area. Five L.A. suburbs requested that most of the common carrier frequencies in their area be reallocated for Public Safety land mobile use, in spite of the fact that 40 channel pairs in T-band channel 16 were reallocated exclusively for Public Safety use in L.A. in 1985, these being in addition to the hundreds of exclusive channels in the 866 - 869 MHz band. The Commission, though, acknowledged the fact that agencies in the L.A. area have planned coordinated use of T-band for some time, including provisions for mutual aid among those agencies operating in T-band. Therefore, only six frequencies are being made available for common carrier fixed use in L.A. Eight frequencies (four pairs) will be reserved for the existing mobile telephone system. And the remaining 17 channel pairs (470.0625 through 470.2875 and 506.1375 through 506.2875 MHz) will be reallocated for Public Safety use in the Los Angeles area.

The accompanying table lists the T-band channels now available for fixed, control links. As you can see, Houston is the only city to have made appreciable use of T-band channels for mobile telephone use, leaving only one pair for fixed use.

The FCC issued a Memorandum Opinion and Order reaffirming their action reallocating the band from 220 to 222 MHz for Land Mobile use. Prior to that action, the entire band from 220 to 225 MHz was alloted for Amateur Radio use on a shared basis with Land Mobile and Fixed service, even though no other non-government services were presently authorized to use the band. These allocations were the result of the proceedings at the 1979 World Administrative Radio Conference and subsequent action in 1983. The decision in 1988 allocated the 222 - 225 MHz band to the Amateur Radio Service on a primary basis and similarly allocated the 220 -222 MHz band for Land Mobile use on a primary basis, mainly for the development of very-narrow bandwidth techniques. Amateur interests petitioned for reconsideration, questioning the need for more spectrum for land mobile use, whether the Commission acted arbitrarily in this matter and emphasizing the need for this spectrum in the Amateur Radio Service.

The Commission responded by noting that there has been a consistent growth in the demand for land mobile spectrum for many years and that there is no reason to believe that this will change in the foreseeable future. They repeated their earlier contention that the implementation of very-narrow bandwidth modulation techniques requires an exclusive

FREQUENCIES NOW AVAILABLE FOR COMMON CARRIER FIXED USE

Boston

470.1125	473.1375	482.2625
470.1375	473.1625	482.2875
470.1625	473.1875	485.0125
470.1875	473.2125	485.0375
470.2125	473.2375	485.0625
470.2375	473.2625	485.0875
470.2625	473.2875	485.1125
470.2875	482.1125	485.1375
473.0125	482.1375	485.1625
473.0375	482.1625	485.1875
473.0625	482.1875	485.2125
473.0875	482.2125	485.2375
473.1125	482.2375	485.2625
		485.2875

Chicago, Cleveland, NYC

470.0125	473.0125	476.0125	479.0125
470.0375	473.0375	476.0375	479.0375
470.0625	473.0625	476.0625	479.0625
470.0875	473.0875	476.0875	479.0875
470.1125	473.1125	476.1125	479.1125
470.1375	473.1375	476.1375	479.1375
470.1625	473.1625	476.1625	479.1625
470.1875	473.1875	476.1875	479.1875
470.2125	473.2125	476.2125	479.2125
470.2375	473.2375	476.2375	479.2375
470.2625	473.2625	476.2625	479.2625
470.2875	473.2875	476.2875	479.2875

Miami, Pittsburgh

470.0125	473.0125
470.0375	473.0375
470.0625	473.0625
470.0875	473.0875
470.1125	473.1125
470.1375	473.1375
470.1625	473.1625
470.1875	473.1875
470.2125	473.2125
470.2375	473.2375
470.2625	473.2625
470.2875	473.2875

Detroit

476.0125	479.0125	482.0125	485.0125
476.0375	479.0375	482.0375	485.0375
476.0625	479.0625	482.0625	485.0625
476.0875	479.0875	482.0875	485.0875
476.1125	479.1125	482.1125	485.1125
476.1375	479.1375	482.1375	485.1375
476.1625	479.1625	482.1625	485.1625
476.1875	479.1875	482.1875	485.1875
476.2125	479.2125	482.2125	495.2125
476.2375	479.2375	482.2375	485.2375
476.2625	479.2625	482.2625	485.2625
476.2875	479.2875	482.2875	485.2875

Philadelphia

500.0125	503.0125	506.0125	509.0125
500.0375	503.0375	506.0375	509.0375
500.0625	503.0625	506.0625	509.0625
500.0875	503.0875	506.0875	509.0875
500.1125	503.1125	506.1125	509.1125
500.1375	503.1375	506.1375	509.1375
500.1625	503.1625	506.1625	509.1625
500.1875	503.1875	506.1875	509.1875
500.2125	503.2125	506.2125	509.2125
500.2375	503.2375	506.2375	509.2375
500.2625	503.2625	506.2625	509.2625
500.2875	503.2875	506.2875	509.2875

Los Angeles

506.0625
506.0875
506.1125
509.0625
509.0875
509.1125

Houston

488.2875
491.2875

San Francisco

482.0375	485.0125	488.0375	491.0125
482.0625	485.0375	488.0625	491.0375
482.0875	485.0625	488.0875	491.0625
482.1125	485.0875	488.1125	491.0875
482.1375	485.1125	488.1375	491.1125
482.1625	485.1375	488.1625	491.1375
482.1875	485.1625	488.1875	491.1625
482.2125	485.1875	488.2125	491.1875
482.2375	485.2125	488.2375	491.2125
482.2625	485.2375	488.2625	491.2375
482.2875	485.2625	488.2875	491.2625
	485.2875		491.2875

Washington, D.C.

488.0125	491.0125	494.0125	497.0125
488.0375	491.0375	494.0375	497.0375
488.0625	491.0625	494.0625	497.0625
488.0875	491.0875	494.0875	497.0875
488.1125	491.1125	494.1125	497.1125
488.1375	491.1375	494.1375	497.1375
488.1625	491.1625	494.1625	497.1625
488.1875	491.1875	494.1875	497.1875
488.2125	491.2125	494.2125	497.2125
488.2375	491.2375	494.2375	497.2375
488.2625	491.2625	494.2625	497.2625
488.2875	491.2875	494.2875	497.2875

Dallas- Ft. Worth

482.0875	485.0875
482.1125	485.1125
482.1375	485.1375
482.1625	485.1625
482.1875	485.1875
482.2125	485.2125
482.2375	485.2375
482.2625	485.2875
482.2875	485.2875

allocation of "virgin" spectrum, similar to the reservation of portions of the 800 MHz band for the development of trunked systems in the mid-70s. Implementation is very unlikely, or impossible, in the currently allocated bands and no other practical spectrum is available. The Commission also repeated their contention that the 220 - 222 MHz segment is very lightly used and with the possible exception of a few of the largest cities, any operations in this segment can easily be accommodated in the 222 - 225 MHz band. In any case, amateurs have access to frequencies in bands at 420 - 450, 902 - 928, 1240 - 1300 MHz, etc, although many are also on a shared basis. They also pointed out that as in their earlier ruling, the Commission based its decision on the merits of the issues and not on the number of comments filed, although all comments were read and considered. They continue to believe that the public interest would best be served by the allocation of this band for Land Mobile use, for the development of narrowband technology.

The FCC has issued a Notice of Proposed Rulemaking that would modify the present process whereby all land mobile license applications are submitted through frequency coordinators. Since the early days of mobile radio, industry groups formed voluntary frequency advisory committees to advise applicants of an operating frequency. The Commission had few specific rules regarding frequency selection in those days, other than the requirement to choose a frequency band commensurate with the applicants range requirements. In 1958 the Commission officially condoned the use of frequency coordination committees in the frequency selection process. Upon request, they would recommend an appropriate frequency to an applicant, which would then be considered by the FCC. As an alternative, an applicant could perform a "field study", whereby a study was performed of the interference potential to all licensees on the chosen frequency within 75 miles of the applicants location. There were a number of problems with this, though, including the fact that there were no specific standards for the content or quality of

the field study. Also there were problems in cases where coordinators were not informed of frequency assignments made by field study, sometimes resulting in conflicting assignments. In 1986 the FCC eliminated the field study option, requiring all Land Mobile applications to be submitted through frequency coordination committees. One frequency coordinator was selected for each of the land mobile services.
The Private Radio Bureau recently completed a review of the performance of the coordination committees over the last few years. Quite a few comments were received, including complaints about coordinators fees, processing time, the quality of service, etc. A number of parties stated that they were hesitant to complain, since they must maintain an ongoing relationship with the coordinator. There were only a few complaints concerning speed or quality, but more than one dealer stated that many users and dealers objected to some of the fees they considered unreasonable, some even refusing to pay for frequency coordination and operating without licenses.
The Commission stated that they are very pleased with the overall operation and the present procedure, noting that the coordinators handle thousands of applications a year in an expeditious manner as well as handling dispute resolutions. They don't feel the need to regulate the fees charged, since it would require considerable resources to audit and oversee the committees' finances. But since many commenters to the Private Radio Bureau urged some form of alternative, the Commission is now proposing to reinstate a form of field study, for a two year trial period. If adopted, applicants for frequencies below 800 MHz could submit a "Direct Access Application" to the Commission. A copy would have to be sent to the frequency coordinator for that particular service and a certification of this action would have to accompany the application. A list of all licensees on the same frequency within 75 miles would also have to be submitted (and the source of the list noted). These licensees would not have to be notified of the applicants intention to operate on that channel. Its purpose would be to show that the applicant is aware of the conditions on the frequency before applying, should interference or congestion result. Additionally, a statement would have to be included, explaining why the particular frequency was chosen. The frequency coordinator for that service would have 30 days to file any objection to the assignment of the frequency. As another alternative, direct monitoring of the proposed channel could be performed and a report of the results submitted. Specific requirements for times and duration of the monitoring would have to be established, to ensure approximation of actual usage.

The FCC has issued a proposal that would modify slightly the specifications for spread spectrum systems. Such systems are permitted to operate without a license in several bands, most notably the 902 - 928 MHz band. Maximum power allowed is one watt. Systems using the direct sequence technique combine the intelligence to be sent with a higher frequency data signal, which "widens" the bandwidth of the transmitted signal. The rules presently fail to specify the minimum length of the data stream, or spreading code, which has led to uncertainty as to whether a manufacturers system qualifies as a spread spectrum system. A very wide bandwidth is required, both to prevent interference to conventional stations in the same band, and to avoid interference from other stations. This amendment would require a length of 127 binary bits before the sequence repeats.
Frequency hopping systems change their center frequency in a predetermined order very rapidly. The rules require a minimum of 75 frequencies be used, separated by at least 25 kHz, with the average duration on any frequency limited to .4 seconds over 30 seconds. The maximum channel bandwidth is 25 kHz, though, and this proposal would increase that to

500 kHz. This would allow frequency hopping systems to be used to transmit wideband data, such as computer signals. They are also reducing the duration period to 100 milliseconds, averaged over 5 seconds in the 900 MHz band and 7.5 seconds in the 2.4 and 5.8 GHz bands. This has the effect of quadrupling the minimum frequency-hopping rate and should reduce the probability of interference.

INTERNATIONAL

This column is for reporting 2-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to:

Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902

Recently I received correspondence from Walter [WG-001] in which he sent along a packet of information about West German frequencies. I have added all of the data to our still growing database for the Federal Republic of Germany. Here is his data:

Frequency	City	CH#	Notes
68.0300	DUEREN		DUERENER KREISBAHN [DKB] [PUBLIC TRANSPORT/BUSES]
77.9300	EUSKIRCHEN		EVU (ELECTRIC COMPANY)
84.0500	MARTA	349	POLICE
84.0750	MARTA	350	POLICE
84.2350	MARTA	358	POLICE (BAB WESEL?)
84.2950	EDWIN	361	POLICE
84.3150	EDWIN	362	POLICE
84.3350	EDWIN	363	POLICE 1601 1801
84.3750	ASTA	365	POLICE
85.0750	PIROL	400	BGS BORDER PATROL HELICOPTER
85.1150	ASTA	402	POLICE BACKUP
85.1750	METTMANN	405	ROTKREUZ
85.1950	MOENCHENGLADBACH	406	FIRE
85.2150	RHEINSIEG	407	ROTKREUZ
85.2350	KATER NEUSS	408	(ALSO DUTCH STATIONS)
85.2550	KOELN	409	ROTKREUZ
85.2750	DUESSELDORF	410	FIRE
85.3350	DUEREN	413	FIRE
85.3350	AACHEN	413	FIRE
85.3550	BERGISCH GLADBACH RENA	414	POLICE
85.3750	SONDEREINSATZ ARNOLD	415	POLICE
85.4350	SIEGBURG	418	POLICE
85.4550	MOSEL	419	POLICE REPEATER TO REPEATER LINK
85.4550	ARA	419	POLICE REPEATER TO REPEATER LINK
85.4750	WASSERSCHUTZ KOELN VIKING	420	POLICE
85.4950		421	POLICE (SPECIAL BACKUP)
85.5150	NEUWIED NETTE	422	POLICE
85.5350	AACHEN	423	POLICE
85.5750	SOLINGEN ALEX	425	POLICE
85.5950	AHRWEILER ARA	426	POLICE
85.6350	BONN UNI	428	POLICE
85.6550	KOELN ARNOLD	429	POLICE
85.6750	DUESSELDORF DUSSEL	430	POLICE
85.6950	WUPPERTAL ALEX	431	POLICE
85.7150	HEINSBERG HEINO	432	POLICE
85.7350	METTMANN BODO	433	POLICE
85.7750	LANDESWELLE ?	435	POLICE (STATEWIDE??)
85.7950	BONN	436	POLICE (BACKUP CHANNEL)
85.8150	DUEREN	437	POLICE (REPEATER NIDRGGEN)
85.8350	MOENCHENGLADBACH	438	POLICE
85.8550	ESSEN GRUGA	439	POLICE
85.8750	KREFELD CHRISTA	440	POLICE
85.8950	GREVENBROICH GREGOR	441	POLICE
85.9350	DUESSELDORF	431	POLICE (BACKUP)
85.9550	AACHEN ROBERT	444	POLICE (BACKUP)

86.0350	KOELN ARNOLD	448	POLICE (LEFT)
86.0550	ERFTKREIS VILLE	449	POLICE
86.0750	GUMERSBACH AGGER	450	POLICE
86.0950	DUISBURG	451	POLICE
86.0950	LEVERKUSEN	451	POLICE
86.1150	KOBLENZ	452	POLICE
86.1350	KOELN ARNOLD	453	POLICE (RIGHT)
86.1550	WESEL WESPE	454	POLICE
86.1750	WUPPERTAL ? ALEX	455	POLICE (SIEGEN [WIELAND]????)
86.1950	KOELN FLORIAN	456	FIRE
86.2150	BERGISCH GLADBACH ALDO	457	POLICE
86.2350	WUPPERTAL	458	POLICE (DUTCH STATIONS HEARD)
86.2550	DUERER	459	POLICE (REPEATER JUELICH)
86.2750	EUSKIRCHEN ? EULE	460	POLICE
86.2950	SONDERKANAL	461	BOS
86.3150	METTMAN	462	FIRE
86.3150	GUMMERSBACH	462	FIRE
86.3350	DUEREN	463	FIRE
86.3550	SIEGBURG	464	FIRE
86.3550	MOENCHENGLADBACH	464	FIRE
86.3750	EUSKIRCHEN	465	FIRE
86.3750	LEVERKUSEN	465	FIRE
86.4150	DUISBURG	467	FIRE
86.4350	KREIS AACHEN	468	FIRE (AACHEN COUNTY)
86.4550	KOELN	469	FIRE
86.4550	HAGEN	469	FIRE
86.4550	ESSEN	469	FIRE
86.4750	AACHEN	470	FIRE
86.4750	DUESSELDORF	470	FIRE
86.4950	BERGISCH-GLADBACH	471	FIRE
86.5350	WESEL	473	FIRE
86.5550	BW NOERVENICH	474	BGS (ARMY)
86.5750	ARGUS	475	BGS MG
86.5750	AACHEN	475	(BORDER/CUSTOMS)
86.6550		479	(DUTCH STATIONS HEARD)
86.7550		484	(DUTCH STATIONS HEARD)
86.7750	BONN ASTA	485	BGS
86.8150	BONN ?? UNI	487	BGS
86.9550	EDWIN	494	
86.9550	VILLE	494	(BACKUP)
86.9950		496	FIRE BRIGADE
87.0550	ERFTKRTEIS	499	FIRE BRIGADE
146.9900			DUEREN STADTWERKE DUEREN (GAS AND ELECTRIC COMPANY)
147.5700			SIEMENS AACHEN RWTH (UNIVERSITY SECURITY)
147.9100	DUEREN		TAXI (SHARED FREQUENCY)
148.1500	DUEREN		TAXI SCHUHMACHER
148.3700	AACHEN		ASEAG (PUBLIC TRANSPORT/BUSES)
149.3500	KOELN (COLOGNE)		KVB (PUBLIC TRANSPORT/BUSES/ SUBWAYS)
151.0900	FUNKAMPELN		TRAFFIC LIGHTS
151.3700	DUEREN		ADAC (AUTOCLUB)
151.4300	DUEREN		FUHRPARK DUEREN (GARBAGE COL-LECTION/ROAD MAINTENANCE, ETC.)
151.6100	DUEREN		MEDICAL EMERGENCIES (WEEKENDS)
153.0100	DUISBURG	B1	
153.0300	BONN	B1	W
153.0700	BONN	B1	W
153.0500	DUISBURG	B1	
153.0900	DUESSELDORF	B1	
153.1100	DUISBURG	B1	
153.1300	BONN	B1	
153.1500	DUESSELDORF	B1	
153.1700		B1	
153.1900	DUISBURG	B1	
153.2100	KOELN (COLOGNE)	B1	
153.2300	DUESSELDORF	B1	
153.2500	KOELN (COLOGNE)	B1	
153.2700	WUPPERTAL	B1	
153.2900	KOELN (COLOGNE)	B1	
153.3300	KOELN (COLOGNE)	B1	

153.3100	DUISBERG	B1	
153.3500	DUESSENDORF	B1	
153.3700	NATIONWIDE	B1	CALLING CHANNEL/BASE TO MOBILE
153.3900	KOELN	B1	
153.4100	AACHEN	B1	
153.4300		B1	
153.4500	DUEREN	B1	
153.4700		B1	
153.4900	KOELN	B1	
153.5100	DUESSELDORF	B1	
153.5300	AACHEN	B1	
153.5500	KOELN	B1	
153.5700	DUESSELDORF	B1	
153.5900	WUPPERTAL	B1	
153.6100		B1	
153.6300	AACHEN	B1	
153.6500	DUEREN	B1	
153.6700	AACHEN	B1	
153.6900	DUISBERG	B1	
153.7100	KOELN	B1	
153.7300	BONN	B1	
153.7500	DUESSELDORF	B1	
153.7700	DUESSELDORF	B1	
159.9300	KOELN		(AIRPORT) GROUND
159.9300	BONN		(AIRPORT) GROUND
160.4300	DUESSELDORF		SECURITY TRANSPORTS
162.2100	DUISBERG	B2	
162.2300	DUISBERG	B2	
162.2500	KOELN	B2	
162.2700	DUESSELDORF	B2	
162.2900	AACHEN	B2	
162.3100	BONN	B2	
162.3300	WUPPERTAL (EYK??)	B2	
162.3500	DUESSELDORF	B2	
162.3700	GFS=87	B2	
162.3900	BONN	B2	
162.4100	DUESSELDORF	B2	
162.4300		B2	
162.4500	DUESSELDORF	B2	
162.4700	DUISBURG	B2	
162.4900	KOELN	B2	
162.5100	WUPPERTAL (EYK??)	B2	
162.5300	AACHEN	B2	
162.5500	GFS=87	B2	
162.5700	WUPPERTAL	B2	
162.5900	DUEREN	B2	
162.6100	GFS=87	B2	
162.6300	BONN	B2	
162.6500	DUESSELDORF	B2	
162.6700	KOELN	B2	
162.6900	DUESSELDORF	B2	
162.7100	GFS=87	B2	
162.7300	GFS=90	B2	
162.7500	WUPPERTAL	B2	
162.7700	DUESSELDORF	B2	
162.7900		B2	
162.8100	GFS=87	B2	
162.8300	DUESSELDORF	B2	
162.8500	DUEREN	B2	
162.8700	AACHEN	B2	
162.8900	DUISBURG	B2	
162.9100		B2	
162.9300	WUPPERTAL	B2	
163.6900	DUESSELDORF		ELECTRIC COMPANY
164.5900	DUESSELDORF		(AIRPORT) REPEATER
165.3300			DBP FIXED SERVICE (REPEATER TO REPEATER LINK)
168.1400	DUEREN	230	POLICE
168.5000	KOELN ???	248	MEK/SEK
168.7400	AACHEN PRINTE	260	POLICE
169.0200	DUEREN? KRIPO	274	CRIMINAL INVESTIGATIONS
172.1400	BONN UNI	200	SIMPLEX

INTERNATIONAL continued

172.2000	ROESRATH
172.2200	
172.2800	BONN ASTA
172.3400	KOELN ARNOLD
172.5600	AACHEN KLEO
172.6000	BONN UNI
172.6200	SONDEREINSATZ GYMNICH
172.7400	DUEREN
172.7600	DUEREN
172.7600	DUEREN
172.8400	BONN
172.8600	DUESSELDORF ITTER
172.9800	DUEREN
173.0000	AACHEN
173.1200	AESKULAP BONN
173.1400	DUEREN
173.3000	DUEREN
173.3200	DUEREN
173.5000	DUEREN
173.5000	JUELICH INDE
173.5600	KREUZAU INDE
173.5600	DUEREN
173.7200	STATEWIDE
173.7600	
173.9400	
425.6700	
456.9700	
457.4500	
458.3900	

203	
204	REPEATER
204	POLICE PAGING
210	POLICE TRAFFIC CONTROL
221	BGS (CUSTOMS)
223	POLICE (VIP SECURITY)
224	POLICE
230	POLICE (SPEEDTRAPS/BACKUP FREQ)
231	POLICE (CRIMINAL INVESTGATION)
231	FIRE BRIGADE
235	GBS/LKA
236	POLICE KRIPO (CRIMINAL INVESTIGATION)
242	POLICE
243	POLICE (TRAFFIC CONTROL)
249	
250	FIRE BRIGADE
258	POLICE
259	POLICE (SPEEDTRAP)
260	POLICE
268	POLICE
271	POLICE
271	POLICE
279	POLICE NET
281	
290	
	DUPLEX UNKNOWN USE
	TAXI
	TAXI
	ABIN/AIB

Until next month:

LOW BAND SKIP

Send reception reports relating to distant stations received in the 30-50 MHz band plus any Low Band DXing tips, comments, etc. to:

Paul Bastian (PA-267), 800 Kimberton Road, #H-4, Phoenixville, PA 19460

Welcome to the start of a New Year. I would like to thank all of those who wrote me in 1989, and hope that this will continue in 1990. On to the mail bag. I received a nice letter from HUGH, CA-LA472, giving me some information on WWV, which I will use in a future column. For now I will list the skip that Hugh sent:

30.20 - M.P.'s
30.22 - Paging
30.58 - Building Co
31.35 - Argentina 2-tone paging
32.68 - same as 31.35
32.82 - same as 31.35
32.96 - same as 31.35
33.02 - Spanish Business, might be C.America
33.14 - Spanish Business
33.16 - Spanish Business
33.55 - Spanish, probably S. America
33.64 - Ambulance Dispatch
33.72 - Eastern Time Zone, might be Bedford PA FD
33.78 - Eastern Time Zone,probably PA Fire Depart
35.28 - same as 31.35
35.32 - same as 35.32

I also received a letter from Louis, NJ-257, with some skip, but he wrote to explain about some activity he heard one night. So here

is part of his letter: "IT SEEMED THAT MOST OF THE ACTIVITY WAS BELOW 40 MHZ BUT WITHOUT THE BOYS IN CA ON 39 MHZ, I WAS LOST. THE 37 MHZ BAND WAS THE HOTTEST AROUND HERE. 37.08 WAS THE BUSY FREQ, BAXTER COUNTY, WASHINGTON COUNTY, LAKEVIEW, THESE ARE I BELIEVE IN ARKANSAS. SO IS SOME ACTIVITY ON 37.24. ALSO IN USE WITH A SLIGHT SOUTHERN ACCENT WERE ON 39.50, 39.46, 37.52, 37.14, 37.04, 37.10. I HEARD SOMEONE MENTION THE LEXINGTON WATER DEPT ON 37.26. I THOUGHT I HEARD AN ID ON 37.36, KNIF645 AND KHD246, THE LAST CALL IS A GUESS, 37.24 MENTIONED WOODRUFF COUNTY. THE THING THAT MADE THIS MOST INTERESTING WAS THE TIME I FIRST STARTED GETTING SIGNALS, 8 PM !! THIS LASTED TILL 9:30 PM WHEN I FINALLY HAD TO CALL IT A DAY. THIS WAS THE BEST I'VE HEARD IN MONTH'S".

Below is skip which Louis heard on July 31, 1989:

37.36 - "K1169 on Low Band 1 to Dewight Correction Center"
"WNTI 560 Clear
37.54 - Mentions Piggly Wiggly Store & Meter
37.58 - KWY377 ? "Highway 50"
42.06 - "Phone Number 532-2984"
"Kirkwood Drive, Car #237"
"Macon 161"
"K??243"
"677-7770"
"Aero Mini Mart In Center"
"ST Joseph 676"
42.54 - "X-41, X-74"
42.60 - "A Adam, King 37"

Our NEW PRODUCTS EDITOR, CURTIS HARBIN, sent me information which he received from ROY, TN-050:

25.75 - BBC
25.79 - R.S. Africa
25.82 - Radio Paits National
25.90 - Foreign Language
30.10 - Military Convoy - "X-Ray"
30.90 - Military Convoy on I-95 in Florida

To finish this month we will continue with RUSS, MI-002 extensive logging's:

DATE	TIME	FREQ	CALL	USER
6-25	09:49	39.98		S. Euclid, OH - Police
	21:45	39.42		Terrebone Parish, LA - Sheriff
	21:51	39.58		Scrambled
	21:53	39.68		"206 to 204 I'm on the spillway bridge"
	22:15	39.50		"On Lake St. Johns" mentioned
	22:28	39.40		E. Baton Rouge Parish, LA - Sheriff
	22:29	39.90	KAG741	Frontier Con, NE "Tornado warning"
6-28	15:41	33.92	WQL690	Mystic, CT
	16:08	33.88		Cy Fair VFD, Houston, TX
	16:21	37.06		Columbia Co, AR - Sheriff
	16:27	39.98		State Of Texas; RR Commission
6-30	17:04	39.42		"Shots fired behind Westwood apts
	17:13	33.30	KNHB464	Oil rig
	17:22	45.42		Holmes Co., MS - Sheriff
	17:26	45.22		Richland MS - Police
	17:28	45.22		Rolling Fork, MS - Police
	17:30	33.30	KDX274	Oil Rig
	17:50	37.64		Utility "Plug-ins" at 1132 Sandalwood-6649 Rue Louis Fillipe, 231 laurizini, 1300 Bolo.
	17:55	37.26	KZE542	Willis Pt, TX
	21:23	42.12		MO State Police
	21:27	158.985	KQJ81	OH Highway Turnpike Patrol
	21:30	42.12		MO State Police
	21:35	39.98	KAG374	Keith Co, NE; Dispatch Ambulance
7-01	23:20	42.42		TN Highway Patrol
	23:28	42.12		MS Highway Patrol
7-02	16:56	33.70		Bridgewater, CT - Fire
	16:58	33.74		New Hartford CT - Fire ??
	17:02	33.70	KNBD595	Wells, ME - Fire
	17:05	33.86	KBF376	Waterbury, CT - Fire ??
	17:18	33.86		Mt Hope CT - Fire ??
	17:32	33.70	KCF582	Thomaston, ME - Fire

	17:40	45.12	KCW347	Berlin, CT - Fire
	17:45	33.80	KCD346	Tolland Co, CT - Fire
	17:54	45.22		Belmont, MS - Police
	17:55	33.52		Community Protection Services - Fire
	17:59	33.72	KNCB532	W. Bridgewater, MA - Fire
	18:11	33.80	KCD346	Tolland Co, CT - Fire
	18:25	33.88		Cy Fair VFD - Houston TX
	18:28	39.50		Logansport, LA - Police
	18:33	39.50		Ringgold, LA - Police
	18:35	39.50		DeSoto Parish, LA - Sheriff
	18:50	39.50		Mansura, LA - Police
	19:00	33.90	KNIJ368	Raceland, LA - Fire (Radio Test)
	20:00	33.52		Community Prot. Serv. Fire - TX
	20:10	39.50	KKC592	LA State Police at Lake Charles
	22:43	33.76	KNBH905	Dukes Co, MA - Fire
	22:48	39.50		LA State Police, Troop I
7-03	17:28	42.52		NC Highway Patrol
	17:31	42.50		NC Highway Patrol
	17:32	42.26		SC Highway Patrol
	17:33	42.10		SC Highway Patrol

Until Next Month.....Take Care

MONITORING & THE LAW

Jorge Rodriguez, 1129 Castile, Coral Gables, FL 33134

Book Review: *ANARC Guide to U.S. Monitoring Laws*

There is a new weapon in the line of defense from legal entanglements related to the hobby of monitor radio listening: the *ANARC Guide to U.S. Monitoring Laws*. The *Guide*, published by the Association of North American Radio Clubs (P.O Box 462 Northfield, MN 55057), was compiled by Frank Terranella, an attorney in Ft. Lee, New Jersey.

Contained in its 39 pages are law and commentary related to monitoring in the United States. Those states which have specific laws affecting the monitoring of radio communications are covered in detail. They are specifically: California, Florida, Indiana, Kentucky, Michigan, Minnesota, Nebraska, New Jersey, New York, North Dakota, Oklahoma, South Dakota, Tennessee, and Vermont.

The *Guide* is not merely a reproduction of the laws and statutes of those states as they affect monitoring. Where applicable, the author has added comments explaining the law of a particular state. Also provided are citations to actual cases which have interpreted the law.

A reader who wishes to know more about a particular law can go to a nearby law library (most courthouses and all law schools have one) and read the actual facts and decision of a case which has been decided using that law.

In addition to the states listed, the author has provided a copy of the relevant sections of the Electronic Communications Privacy Act of 1986. As with the law of the various states, this too has an explanatory comment by the author which is easier to understand than the legal jargon of the actual law.

The *Guide* does not mention monitoring laws in the other states; as far as the author can tell those states do not have any laws affecting monitoring. Also the reader is alerted to the fact that the law is constantly changing and no publication of this nature can ever by completely accurate. This is true. "This guide can do no more than alert you to laws that have been passed", the author says in his introduction.

If you live in one of the states named above, are generally interested in monitoring laws, or would like to know how the Electronic Communications Privacy Act of 1986 affects you, the *Guide* is a good investment. It is available for $7.50 from ANARC Publications, 1218 Huntington Road, San Marcos, California 92069. (Please note this is a new address for ANARC Publications)

RCMA has a Telephone Number

The RCMA telephone number is (714)545-9551. It's `manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.

Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well. Do not call regarding a missing newsletter before the 20th of the month of the issue in question. **Your message will be relayed to the appropriate person, but your call will not be returned.**

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PAID ADVERTISING

MARKETPLACE

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility/radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transaction between members resulting from ads printed in this column.

Please Note: Ads must be submitted on Marketplace ad forms ONLY. You can obtain these by sending your request AND an SASE to RCMA, P.O. Box 542, Silverado, CA 92676. Ads received at this address by the first of the month will appear in the issue printed during the same month. You must include your membership number.

FOR SALE: Bearcat 70XLT . 20 ch handheld scanner, like new, in warranty 'til 4/90. Includes case, charger, rubber ducky; in original box. $100.00.
Contact: Vernon Slaughter (CT–120), 133 Currituck Rd, Newtown, CT 06470. (203)426–3395. (10/30/89)

Are You Renewing?
Are You Changing Your Address?

If you are renewing your RCMA membership, please return the Renewal Notice Card you receive in the mail. It's the best way to ensure uninterrupted delivery of your newsletter. If you lose the card, be sure to write your membership number on your check or money order.

If you are moving, please let us know your new address before the end of the month prior to the move. Otherwise, your Post Office will return the issue to our Anaheim P. O. Box—a process which has taken as long as three months. The result is that RCMA will pay 30 cents per notice, you will miss at least one issue, and you'll have to pay for replacement issues.

A reminder concerning a 'late' newsletter: We do not replace lost issues until the 20th of the month of the actual cover date. So, please wait to write or call until that time.

NEW PRODUCTS REVIEW

This column is for news of new products and product reviews of interest to scanner and short wave utility listeners. Send news, reviews, and comments about receivers, antennas, frequency publications and other products related to the hobby to:

Curtis Harbin, P. O. Box 5576-E.K.S., Johnson City, TN 37603

HAPPY NEW YEAR EVERYONE!!!! Welcome to the 1990's. Just think, years ago when some of us were growing up, we never dreamed of even seeing 1990, let alone the upcoming 21st century. Now, things we once thought impossible,. are now a reality! You say Santa brought you some extra spending money you don't know what to do with? Read on, I have some excellent items reviewed this month you can spend it on!

I have received a nice letter from Paul Elliott, CASC-072. Paul sends in some information of the Bearcat 100XLT and the 200/205XLT units and I apologize for not getting it in sooner. Thanks Paul. Paul says he has read articles about the BC-100XLT and BC-200/205XLT scanners, and all of them extol the virtues of both of these radios, but few articles mention any drawbacks. I've owned both the BC-100XLT and the BC-200/205XLT and overall I think the radios are very good, but both have some problems that may make them unsuitable to the needs of some people. The first is peculiar only to the BC-100XLT, and is significant to those who wish to use the priority function. Those familiar with this radio know that the first channel of each of the ten banks is a priority channel. The instructions supplied with the radio say that you can lock-out these priority channels individually, except for channel 1 which cannot be disabled as a priority channel.

Unfortunately this is not the case with priority channels 11, 31, 51, 71, and 91. Locking out these channels does not stop them from being sampled by the priority function even though they are not sampled during scanning. To lock out channels 11, 31, 51, 71, and 91 and keep them from being sampled by the priority function you must also lockout channels 9, 29, 49, 69, and 89 respectively. Strange, but true. After several phone calls and many detailed explanations to Jim Holtel, Uniden Service Center Manager, he finally acknowledged the existence of this software design defect. Mr. Holtel at first told me that he would call me back when a fix was found for this problem. Later on I was told by Mr. Holtel that since all BC-100XLT radios did this, it was considered "normal and acceptable" by Uniden and they would do nothing to correct the problem. So, if anyone needs full operation of the priority function, or if this feature is one of the reasons you are considering purchasing this radio, you should consider what this design flaw means to you.

Another flaw involving both the BC-100XLT and the BC-200/205XLT has to do with the lack of image rejection on both of these radios. One of the frequencies I regularly listen to is 154.250 mhz, the frequency of a fire department in my area. This happens to be 21.7 mhz. above a local airport approach frequency, 132.550 mhz. But, because of the images produced by both these radios, which appear 21.7 mhz below the tuned frequency, I receive a large amount of aircraft traffic while tuned to the fire department frequency. Sometimes the aircraft transmissions are so strong they cover the weaker fire department transmissions. While it's nice that "American Airlines flight 236 is at 4000 feet with airport in sight", this is not a bit of information I need to know while trying to listen to the radio transmissions of a fire truck responding to a medical call. I listen to the frequency of the campus police of a local college on 464.775 mhz. During a recent chemical spill at this college, I discovered that I also receive Ham radio transmissions on this same frequency which are being transmitted on 443.075 mhz. These signals also cover some of the weaker signals I am trying to hear. I've experimented with these radios and found that with almost every frequency I programmed into them they will also receive, with virtually identical strength, signals 21.7 mhz. below the programmed frequencies. I understand all receivers produce image frequencies, but in properly designed receivers these image frequencies should fall outside the listeners range to avoid annoying interference. Obviously these radios were not designed with this in mind. So, anyone considering buying these radios should find out if any of the frequencies they plan on listening to are 21.7 mhz, above any active frequency in their area if they are to fully enjoy these scanners and avoid unwanted signals.

As a side note, I'd like to comment about the problems some people have had with Uniden Customer Service and the Uniden Service Center. I had very similar problems to those I read about in this newsletter. I finally resolved my problem by calling and complaining to Uniden Corporate Headquarters in Texas, and then, in desperation, threatening to write the president of the company. The whole process took almost a year, but my problem was eventually resolved.

Grove Enterprises PRE-3 and ANT-8

I have received from my good friend Bob Grove and Grove Enterprises the PRE-3 Preamp and the ANT-8 telescopic antenna for portables. These items are excellent additions to any scanner shack ! My thanks to Bob and Grove for so graciously providing me with these items to review, as I have had a number of requests for information on these units.

Have you ever heard a station that was noisy and barely readable and wished you could hear them better ? Have I got a unit for you !!!!! A unit that offers up to 30 db of amplification.

The PRE-3 is a neat, compact, and excellent preamp for any scanner. The unit is powered by 12-15 VDC, has variable gain adjustable by the control on the front of the unit, and an LED that lights when turned on. Provisions are made for connection of 2 separate receivers to this unit. This is an excellent feature that I have used myself. You simply connect an antenna, whether internal or external to the

input of the preamp, run a jumper from the preamp to the scanner(s) and turn the unit on. The unit does not have a bypass to allow signals through. So the unit must be turned on, otherwise substantial signal loss will be noted. For the most part, I kept the gain control at the half way setting. This was more than adequate for me. There were times that I did turn the unit up all the way to really clear up the station I was listening to in Knoxville (100 miles away). Came in crystal clear.

The unit comes with F connectors, which presented no problems to me since these are excellent and efficient connectors for signal transfer. A power source of 12–15 VDC must be obtained, either by a wall transformer that Grove also sells, or by a power supply or by the cars battery if used in a vehicle.

I used the PRE–3 mainly on my BC–200XLT. I was extremely happy with the results. ALL frequencies I tried with the preamp came in super clear. I used the BC–200XLT, PRE–3 preamp, and Antenna Specialist MONR–33 antenna. This is a fairly decent antenna on certain frequencies; on others it isn't. I chose this antenna just to see how really good the unit is. Boy, was I in for a surprise! The aircraft band on that antenna is lousy at best!! With the PRE–3 preamp, the signals from the ATIS and the tower were extremely clear and readable. No problem on the aircraft band! UHF and VHF signals were no problem either for the preamp. Was extremely pleased I could receive the aircraft with no problem, but how was it at 800 MHZ ?

I tried receiving my local SMR control channel without the preamp; no signal present I was told, but I knew better. I connected the preamp up and like magic, the control channel data was now there. Noisy, but there now! (I should mention that the MONR–33 is not at all good on frequencies above 512 MHZ.) With a high quality high band quarter wave antenna, all frequencies that were noisy, came in crystal clear now ! A good quality antenna does make a big difference !

I proceeded to take the PRE–3 preamp to my shop the next day for a test with my service monitor on various frequencies. The service monitor used was a Motorola R–2200, modulation was +/–5 khz and at 1 khz tone. Aircraft band was at +/–75 % modulation. The scanner used was a BC–200XLT. Squelch setting was turned half way. Readings are in microvolts.

Frequency	Plain	1/2 setting	Full gain
155.250	.3	.13	.1
451.100	.25	.15	.12
35.000	.2	.12	.12
119.000	.3	.13	.11
122.000	.3	.13	.11
135.000	.32	.15	.12
45.000	.36	.12	.12
151.000	.35	.15	.12
160.000	.35	.15	.12
165.000	.35	.15	.13
445.000	.3	.2	.15
450.000	.26	.2	.16
460.000	.2	.2	.16
864.9875	.93	.9	.6
856.2375	1.2	1.0	.63

From my personal use and observations, I feel that this is an excellent unit for anyone who needs that little extra advantage for pulling in those weak signals. As with all preamps—no matter how good they are—there is always that chance of overload in a strong signal environment. The unit is very compact and will fit most anywhere you desire to place it. The PRE–3 is built with a rugged construction metal frame and quality, smooth action potentiometer. This unit should provide the user with many years of trouble free operation. The unit is warranted for 1 year and sells for $49.00 plus $2.00 UPS shipping.

Grove ANT–8

The next item Bob sent is the ANT–8 telescopic antenna for use with any portable with BNC connector. The helical "duck" antenna on most scanners at times just doesn't work that well at times pulling in certain stations. I know I have discovered this and had this problem on low band as well as 800 MHZ. frequencies. Well, Grove Enterprises has helped us scanner users out! This unit is a full length, 49" telescopic antenna. It will help you on reception of signals. I tried this unit out on our local THP channels (low band), aircraft band, and 800 mhz. frequencies. I was impressed. With the "duck" antenna, THP base was noisy, with the ANT–8 it came in crystal clear! On aircraft (inside my shop which is very well shielded), the signals came through on the telescopic, on helical–useless, and you'd have better luck standing on your head trying to pick the signals up. On 800 mhz., I was able to substantially improve the quality of signal versus the helical.

I tried this unit out at my shop as well as my house. I live in the country away from all the city towers, interference, like in no man's land, o.k., and it is difficult to pull in some local channels at times, let alone THP on a helical antenna. So I tried the ANT–8 and was pleasantly surprised to receive THP as well as there UHF system that was not heard of before. The ANT–8 is tunable for the different bands. It can be adjusted for low band–fully extended, high band–approximately 19" or so, as well as UHF–6", and 800 MHZ. 3" or so.

The user will have to experiment with the antenna to obtain the desired performance length needed for his or her situation. This is mentioned in the instructions. I know from my own experience that this antenna is ideal for my situation when using a portable at home. Really brings in the stations now. Needless to say, I am very impressed with this unit.

The ANT–8 is well constructed and is designed for portable scanners with BNC connectors. Full in–

structions are included. Price is $12.95 plus $1.50 for shipping UPS to your door.

As I am sure all the readers are aware, Grove Enterprises is a dedicated company with many years in the electronic community and a high regard for customers. They offer only the highest quality products available. Both the PRE-3 preamp and the ANT-8 telescopic portable antenna may be obtained from: Grove Enterprises, Inc.., P.O. Box 98, 140 Dog Branch Road, Brasstown, NC. 28902. (When ordering these units, be sure and mention that you read about them in RCMA.) Grove Enterprises will be happy to know this. And, be sure and inquire on their latest catalog chopped full of neat items! Grove Enterprises offers a wide selection of scanners, antennas, and accessories for us scanner and shortwave enthusiasts! Almost forgot—Grove's phone numbers are: (704)837-9200 or 1-800-438-8155. Bob Grove also informs me that a new PRE-4 is in the making and by the time you're reading this, it should be out! The Pre-4 will be slightly different than the Pre-3, but will offer the same excellent results!!!!! Be on the lookout for this in the future!

My last item before leaving this month is from Tim, IL-281. Seems that Tim got him a "Tape Saver" unit from Electron Processing, Inc. The TS-1 "Tape Saver" is a vox tape unit for connecting a scanner to a tape deck. He hooked the unit up in less than 5 minutes and is well pleased with the results. The TS-1 has some LED's on top of the unit, one marked "Recording", and the other "Power". The LED marked "Power" stays on as long as the TS-1 is plugged up. The "Recording" LED stays on as long as the TS-1 records the transmission. They are not bright and in a well lighted room you'd hardly notice either LED was on, if you didn't check them.

There is also a toggle switch on the TS-1 for using the speaker if you decide to listen to what you're recording. It works in conjunction with the volume control on the scanner. In my case, I kept the volume control on my AR-2002 at "9 o'clock", and didn't have any problems.

There is a built in "delay" on the TS-1, so you don't have to use a "delay" feature on your scanner. If you want to change the "delay" time on the unit, they inform you in the instructions to open the unit and adjust the potentiometer inside on the PC board.

The first time out with the TS-1, I recorded 4 hours on one side of a C-90 cassette. This was with the "delay" feature on the AR-2002 activated, so this might account for the "extra time". The second time out with the unit, I didn't use the "delay" on the AR-2002, and was well into the 4 1/2 hours of recorded transmissions, when I stopped the unit myself.

Tim liked the TS-1 for overnight recording better than the "Nitelogger" since the TS-1 doesn't emit the "clicks" like the "Nitelogger" does when it kicks in/out the recording relay. About the only noise you get from the TS-1 is when the cassette deck gets to the end of the tape and shuts itself off. Otherwise, it's very quiet when it's in operation—especially when you turn the speaker off while recording.

Thank you Tim, hope to hear from you again soon. And with that, I am out of time and space again. Thanks everyone and we'll see you back here next month. On a final note, the reason there was no November column in 1989 was due to the fact of the fine Postal Service lost my column! Somewhere between here and California my November column may be floating around. Sorry for the missed column, wasn't my doing, as it was mailed! Carol promised that me that there would be 2 columns in the December newsletter. Hope everyone enjoyed it. Till we meet again.....

NEWS MEDIA COMMUNICATIONS

This column is for reporting information about news media radio communications. Send frequency lists, information, questions and any related articles on two-way radio systems used by television, radio, newspaper, magazine, film production companies, etc. to:

Allen G. Henney, MD-069, 6912 Prince Georges Ave, Takoma Park, MD 20912

TO START OFF THIS NEW YEAR'S COLUMN, WE HAVE SOME MORE UPDATES FROM BRIAN JOHNSON (CA-SD-073). LAST MONTH, BRIAN PROVIDED US WITH UPDATES FOR THE SAN DIEGO AREA.

THIS MONTH, HE TELLS US THAT THE UNION TRIBUNE PUBLISHING COMPANY FREQUENCIES (LISTED LAST MONTH) HAVE, WHAT APPEAR TO BE, A ROTATING DATA CHANNEL. BRIAN SAYS THAT FROM TIME TO TIME DATA CAN BE HEARD ON ALL OF THE CHANNELS LISTED AS WELL AS VOICE ON THE CHANNELS NOT BEING USED FOR DATA ON THAT PARTICULAR DAY. THE DATA CHANNEL CHANGEOVER IS BELIEVED TO TAKE PLACE AROUND MIDNIGHT. THIS SOUNDS LIKE IT COULD BE A TRUNKED SYSTEM. DOES ANYONE HAVE ANY MORE IDEAS WHAT THE DATA CHANNELS ARE FOR, IF NOT FOR CONTROL OF A TRUNKED SYSTEM?

BRIAN PROVIDES MORE INFORMATION ON THE FREQUENCY 450.7625 MHz WHICH IS LICENSED TO KFMB-FM100.7 IN SAN DIEGO. KFMB-TV8 MIGHT ALSO HAVE ACCESS TO THE FREQUENCY AS BOTH STATIONS ARE OWNED BY MIDWEST B/C.

FRED (CA-SD-089) AND BRIAN REPORT THAT MONICA ZECH TRAFFIC REPORTS IN THE SAN DIEGO AREA FOR METRO TRAFFIC CONTROL ARE EXPECTED TO GO INTO OPERATION SHORTLY ON 450.95 MHz (PRIMARY) AND 455.5 MHz AS A FUTURE POSSIBLY SECONDARY CHANNEL.

Place
25 cent stamp
here

To: William Mauldin
RCMA General Editor
961 Azalea St.
Boca Raton, FL 33486

RCMA 1990 MEMBER SURVEY - Page III

We need to know what frequencies you listen to most often. In the spaces below, tell us YOUR FAVORITE users and their frequencies.

YOUR STATE: _____

	FREQUENCY	ASSIGNMENT/USE	USER OR DEPARTMENT
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____
7.	_____	_____	_____
8.	_____	_____	_____

RCMA 1990 MEMBER SURVEY - Page II

9. What is your favorite scanner - Make & Model?

_____

10. If you were to buy a NEW scanner tomorrow, what would you buy?

_____

11. If you use an outdoor antenna, what make & model is it?

_____

12. Do you understand the RCMA Policy against publication of federal law enforcement frequencies? Do you support this club policy?

( ) YES ( ) NO ( ) YES ( ) NO

13. Do you use any information in the RCMA Newsletter in your business or occupation?

( ) YES ( ) NO

RCMA GENERAL SURVEY FOR 1990

It is Survey time again! This is YOUR chance to let us know how we are doing. This year, there is also a page for you to tell US what you are listening to. This CENTERFOLD page can be removed from your magazine without damaging the issue. Just pull this double page from the issue, answer the questions, add a $.25 stamp on page four, and mail. We are depending on your answers to make RCMA better during 1990!

1. Grade the RCMA Newsletter for 1989: (Circle your grade opinion)

   A B C D F

   With regard to 1988, are we:

   (Much Improved) (Somewhat Improved) (No Difference) (Don't Know)

2. Which regular column is your most favorite?

   _____

3. If RCMA were to add one additional subject to the NEWSLETTER in 1990, what subject would you like to see added?

4. If you use a computer in your monitoring hobby, what is the make and model of the computer?

_____

5. What radio service interests you the most? (Fire, for example)

_____

6. What single user, department or system do you monitor most?

_____

7. Other than communications monitoring, what is your biggest hobby?

_____

8. Briefly, what is your biggest complaint about the Newsletter?

_____

Generally, what is your occupation? _____

14. If you subscribe to other monitoring or radio publications, please list them below. Do not name more than three.

_____

_____

_____

15. If you use commercially published Frequency Directories, please name them. List in order of preference. Do not list more than three.

_____

_____

_____

16. If you would like to be considered for a column editor or state associate editor position, please note your name, address and what subjects interest you:

10. _____ _____ _____

11. _____ _____ _____

12. _____ _____ _____

13. _____ _____ _____

14. _____ _____ _____

15. _____ _____ _____

16. _____ _____ _____

17. _____ _____ _____

18. _____ _____ _____

19. _____ _____ _____

20. _____ _____ _____

Now, remove this centerfold from the NEWSLETTER, fold, and place a $.25 stamp on page four, and mail so we can tally your information! Your prompt response is greatly appreciated! PLEASE, take time to give us this much needed information. Your name is NOT required unless you answer QUESTION #16. WE NEED YOUR INPUT! PLEASE COMPLETE THE SURVEY!

BRIAN IS LOOKING FOR AN UPDATED FREQUENCY LIST FOR THE LOS ANGELES AND RIVERSIDE COUNTY, CALIFORNIA NEWS MEDIA. WE HAD TWO EXCELLENT LISTINGS SOMETIME AGO (SEE JULY 87 & APRIL 89 COLUMNS). IF ANYONE CAN HELP BRIAN WITH HIS REQUEST, PLEASE WRITE THIS COLUMN.

FINALLY THIS MONTH, WE HAVE A LISTING OF COMMON MEDIA TERMS WHICH I CONSTANTLY MAINTAIN. THE LISTING STARTED SEVERAL YEARS AGO WITH THE HELP OF REPORTER PENNY DANIELS (FORMERLY OF WJLA-TV7) WHO TAUGHT AN ELECTRONIC JOURNALISM COURSE I ENJOYED TAKING VERY MUCH. PENNY NOW ANCHORS "INSIDE STORY" WHICH AIRS ON WSVN-TV7 IN SOUTH FLORIDA. I WOULD LIKE TO THANK HER VERY MUCH FOR HER INSIGHT INTO THE MEDIA AND WISH HER THE BEST OF LUCK IN THE SUNSHINE STATE.

IN ADDITION TO TERMS PROVIDED BY PENNY AND MYSELF, I GRATEFULLY THANK THE FOLLOWING FOR THEIR HELP WITH THIS LISTING; CHUCK (CA-SD-008), PETE KEMP (CT-073), GARY NICHOLS (KRLD-DALLAS), KEVIN O'ROURKE (WSIL-TV3-HARRISBURG, IL), KEVIN PARRISH (WNBC-TV4-NY) AND JOHN PILGER (SHADOW TRAFFIC). IN AN EFFORT TO CONSERVE SPACE, THIS LISTING INCLUDES ONLY WHAT I CONSIDER TO BE THE MOST COMMON TERMS. FOR A COPY OF THE COMPLETE 7 PAGE LISTING, PLEASE DROP ME A SASE. LIKE ALWAYS, I APPRECIATE UPDATES AND CLARIFICATIONS FOR THIS LISTING.

COMMONLY USED TERMS IN BROADCAST NEWS

A-ROLL: THE PRIMARY STORY. SEE B-ROLL.

ASSIGNMENT EDITOR: PLANS & ASSIGNS STORIES TO REPORTERS & PHOTOGRAPHERS; RESEARCHES INFORMATION THROUGH CONTACTS & SOURCES; DIRECTS CREWS & REPORTERS IN THE FIELD THROUGH RADIO CONTACT; MONITORS BREAKING NEWS THROUGH SOURCES, SCANNERS & BY CALLING VARIOUS POLICE & FIRE DEPARTMENTS.

B-ROLL: A TERM FOR VIDEO THAT YOU VOICE OVER. THE TERM "B-ROLL" DATES BACK TO THE DAYS OF FILM (VERSES VIDEO TAPE). THE "A-ROLL" WAS THE PRIMARY STORY & THE "B-ROLL" WAS THE FILL-IN BLOOD & GORE.

BLOCK: TIME PERIOD IN A NEWSCAST BETWEEN COMMERCIALS.

BUMPER SHOT: VIDEO USED AT THE END OF A BLOCK (PRIOR TO A COMMERCIAL) WHICH IS USED AS A SORT OF A VISUAL TEASE TO A COMING NEWS ITEM. AN EXAMPLE WOULD BE VIDEO OF SPRING FLOWERS BEFORE THE WEATHER BLOCK.

CUT-AWAY: A SHOT SHOWN WHICH IS NOT OF THE INTERVIEWEE OR THE MAIN "ATTRACTION", OFTEN VIDEO OF THE INTERVIEWER LISTENING. A CUT-AWAY IS OFTEN USED TO COVER A JUMP CUT OR TO ADD MORE VARIETY TO AN INTERVIEW.

CUT-IN: WHEN A NEWS UPDATE OR STORY IS ALLOWED TO CUT INTO A PROGRAM OR A SERIES OF COMMERCIALS. AN EXAMPLE WOULD BE WHEN YOU ARE WATCHING "GOOD MORNING AMERICA" & THE LOCAL STATION THAT IS CARRYING IT "CUTS-IN" WITH FIVE OR SO MINUTES OF LOCAL NEWS, WEATHER & SO ON. A "SPECIAL NEWS BULLETIN" WOULD BE ANOTHER EXAMPLE.

ELECTRONIC JOURNALISM (EJ): THE TRADE NAME PRIMARILY USED BY NBC TO DESIGNATE THEIR ENG DEPARTMENT. SEE ELECTRONIC NEWS GATHERING.

ELECTRONIC NEWS GATHERING (ENG): THE USE OF PORTABLE VIDEO PRODUCTION EQUIPMENT FOR PRODUCTION & SOMETIMES LIVE TRANSMISSION OF DAILY NEWS STORIES. NO FILM USED, ONLY ELECTRONIC VIDEO TAPE.

INTERRUPTED FEEDBACK (IFB): ON AIR "PROGRAM" AUDIO SENT TO THE FIELD (VIA RADIO OR TELEPHONE) FOR USE IN REMOTES, CAN BE INTERRUPTED (USUALLY BY THE PRODUCER OR TECHNICAL DIRECTOR) TO GIVE CUES & INSTRUCTIONS TO REMOTE CREWS. ALSO CALL INTERRUPTED FOLD BACK & PROGRAM INTERRUPT. ALSO SEE PROGRAM [AUDIO].

JUMP CUT: A SHOT THAT WILL BE JARRING TO THE EYE, BECAUSE IT DOES NOT MATCH THE PREVIOUS SHOT.

KICKER: COMMONLY THE LAST STORY OF A NEWSCAST. OFTEN OF A HUMOROUS, AMUSING OR HUMAN INTEREST NATURE.

[LIVE] TAG: WHEN A REPORTER OR ANNOUNCER (RADIO OR TV) ADDS A LIVE, ON-MICROPHONE COMMENT TO A TAPED PORTION. OFTEN DURING LIVE REMOTES, SOME PRE-RECORDED VIDEO MAYBE SHOWN FOLLOWED BY A REPORTER'S LIVE REMARKS REGARDING THE VIDEO JUST BROADCASTED.

LOCATOR: A COMMON VISUAL IDENTIFIER THAT SHOWS THE LOCATION OF A STORY. SUCH AS A STREET SIGN OR WELL KNOWN BUILDING.

MAN ON THE STREET (MOS): AN INTERVIEW STYLE, USING EVERYDAY INDIVIDUALS. ALSO REFERRED TO AS PERSON ON THE STREET (POS).

NATURAL SOUND (NAT SOUND): THE GIVEN SOUND IN ANY SITUATION OR STORY THAT IS NOT AN INTERVIEW, REPORTER TRACK OR STAND-UP... CAN BE BACKGROUND NOISE OR SOT FULL... FOR EXAMPLE, THE SOUND OF GUNS FIRING OR WATER RUNNING.

OUT CUE: TYPICALLY THE LAST THREE TO FIVE WORDS USED IN A STORY (OR SOUND BYTE) WHICH ARE PREVIOUSLY GIVEN TO A REPORTER OR ANNOUNCER & ARE USED TO CUE THEM TO AGAIN START TALKING.

PANNING: THE PROCESS OF ALIGNING A MICROWAVE ANTENNA WITH THE RECEIVING ANTENNA BACK AT THE STUDIO. ALSO THE PROCESS OF MOVING A VIDEO CAMERA TOWARD ANOTHER DIRECTION.

PRE-SHOW [TEASE]: A TEASER WHICH APPEARS BEFORE THE NEWSCAST.

PROGRAM [AUDIO]: ON AIR AUDIO FED TO CREWS IN THE FIELD SO THEY MAY ANTICIPATE CUES. RELATED TO PROGRAM INTERRUPT OR INTERRUPTED FEEDBACK BUT, MAY NOT BE CAPABLE OF INTERRUPTING THE AUDIO TO GIVE CUES & INSTRUCTIONS, JUST CONSTANT ON AIR PROGRAM AUDIO.

PROGRAM INTERRUPT (PIR): SAME AS INTERRUPTED FEEDBACK.

READER: A STORY THAT AN ANCHOR READS WITH NO VIDEO. ON TELEVISION, IT MAY MAKE USE OF AN OVER-THE-SHOULDER GRAPHIC.

[REPORTER] PACKAGE: SIMPLY A NEWS STORY THAT A REPORTER HAS PREVIOUSLY BEEN PUT TOGETHER ON TAPE.

[REPORTER] STAND-UP: WHEN YOU ACTUALLY SEE THE REPORTER TALKING ON CAMERA IN A LIVE SHOT OR A PACKAGE, AS OPPOSED TO SIMPLY HEARING THEM. OFTEN AT THE END OF A REPORTER PACKAGE (CLOSING STAND-UP) OR AT THE BEGINNING OF A LIVE SHOT (OPENING STAND-UP).

[REPORTER] TRACK: THE SOUND OF A REPORTER'S VOICE THAT YOU HEAR IN A REPORTER PACKAGE... SIMPLY THE REPORTER'S NARRATION TO THE STORY. IT IS ALWAYS SOUND ON TAPE.

SATELLITE NEWS GATHERING (SNG): SIMILAR TO ELECTRONIC NEWS GATHERING, BUT PRE-RECORDED OR LIVE MATERIAL IS SENT BACK TO THE STUDIO VIA A SATELLITE UP-LINK.

SOUND BITE: COMMON TERM FOR A CHOSEN OR SELECTED SEGMENT OF AN INTERVIEW OR PUBLICLY MADE STATEMENT. THE SOUND BITE HAS SPECIAL SIGNIFICANCE TO THE NEWS STORY IT APPEARS WITH.

SOUND ON TAPE (SOT FULL): ANYTIME THE AUDIO YOU HEAR IS ACTUALLY ON THE TAPE, AS IN AN INTERVIEW, OR IF YOU HEAR THE REPORTER'S VOICE, OR NATURAL SOUND (SEE NATURAL SOUND)... AS OPPOSED TO THE SOUND BEING VOICED OVER LIVE.

TEASER (TEASE): A PREVIEW OF WHAT'S COMING... AS IN, "COMING UP NEXT...". ALSO SEE PRE-SHOW TEASE.

TELEMATION, CHYRON, KEYS, SUPERS: ALL DIFFERENT TERMS FOR THE WRITING YOU SEE IN THE NEWSCAST. KEYS & SUPERS COMMONLY REFER TO THE NAMES YOU SEE WRITTEN ACROSS AN INTERVIEWEE'S CHEST, OR TO DENOTE A LOCATION.

VOICE OVER (VO): WHEN YOU SEE VIDEO (PICTURES) & YOU HEAR A REPORTER OR AN ANCHOR NARRATING THEM FOR THE VIEWER (BUT DO NOT ACTUALLY SEE THE NARRATOR). IT'S USED AS A NOUN OR A VERB, AS IN TO "VOICE OVER SOME VIDEO" (COMMONLY KNOWN AS A "VO").

VOICE OVER TO SOUND ON TAPE (VO/SOT): SIMPLY A VOICE OVER BUTTED UP TO A SOUND BITE. USUALLY IT MEANS THE ANCHOR OR REPORTER READING OVER PICTURES UNTIL THE SOUND BITE COMES UP, THEN THE ANCHOR STOPS READING. ALSO REFERRED TO AS A "VOICE OVER" TO "SOUND BITE" OR "SOUND POP".

UNTIL NEXT MONTH! ALAN... Alan

PUBLIC SAFETY

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for poilice, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may no be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		

PUBLIC SAFETY—NORTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—New England States, New York, Pennsylvania, New Jersey, Maryland, Delaware, and District of Columbia:

Gary Saffer, 6 Roach Road, Stoughton, MA 02072

Hello, and welcome to the January 1990 edition of PSNE. I wish all members a happy New Year. Discussions are still under way to work out a merge of the Metropolitan, MBTA (transit authority), and Capitol Police Departments. This officer is of the opinion that it will happen, but details need to be worked out. The Metro Police have about 600 sworn personnel, the MBTA a little over 100, and I think the Capitol have about 50 or so. More info as I get it. The Metro Police as of October 3 implemented full trunking of all radio traffic, thereby making all of my previous comments obsolete even before they were printed. I have listened to them for a few days and it is not impossible to follow the traffic, but it's not easy either. They have patrol modes, tactical modes, phone interconnect modes, and other none police agencies on the system. It's like listening to police, business and cellular traffic all on one system. And, as in other trunked systems that I have read about a lot of cars have been going to the radio shop to get the radios reprogrammed the first few days. But there are also a significant number of phone calls to be heard on the system. I won't go into details but, obviously the officers and others making these calls have swallowed the line about trunked systems being impossible to monitor because some sensitive matters are being discussed over the phone patches that I don't think they really wanted to get out. A couple of days later two radio techs also were discussing some

problems with the system and one expressed surprise that a scanner listener had called the radio shop to discuss these problems, apparently they also thought the system was "scanner proof". Oh well, they'll catch on sooner or later.

Now on to the AE reports for this month.

Connecticut, Stephen Repetto, 42 Glenstone Dr, Vernon, Ct 06006-4202

Here is part 2 of John's (NY-308) CT info.

Valley Shore Emergency Communications Service
33.96 Fire Dispatch 46.04 Ambulance Dispatch
Lyme Fire Co.-Lyme Fire Dispatch- 33.92
Flanders Fire Co. Niantic Fire Dept. Old Lyme Fire and EMS
South End Fire Dept.

Town of Waterford Fire Dispatch "Station W"
33.90 Mutual Aid 33.94 Fireground 33.96 Dispatch
Cohanzie Fire Co. Goshen Fire and EMS Jordan Fire Co. Oswegatchie Fire and EMS Quaker Hill Fire and EMS Flanders Fire and EMS Niantic Fire Dept.

Town of Montville Fire Dispatch "Station M"
33.78 Fireground 33.90 Mutual Aid 33.96 Dispatch
Chesterfield Fire and EMS Hamburg Fire Dept. Mohegan Fire Dept and EMS Oakdale Fire and EMS Lyme Fire and EMS Hadlyme Fire Co.

Colchester Emergency Communications Inc. "KX"
33.74 Fireground 33.78 Fireground 33.90 Dispatch
Bozrah Fire Dept. Colchester Fire Dept. Gardner Lake Fire Dept.
Salem Fire Dept Westchester Fire Dept.

Willimantic Area Fire Association "WW"
33.80 Dispatch 33.90 Fireground
Franklin Fire Dept Lebanon Fire dept.

We'll finish up next month.

From an Anonymous member some CT news. New Fairfield Police are on 155.01 with vehicle repeaters on 465.0875 They are dispatched by State Police Troop A on 42.52. Constables sometimes use 42.04 which is Troop A's back up channel. Fire is on 33.86 and Public Works is on 155.94.

Danbury CT FD uses 460.6125 for vehicle repeaters.

The TV show "Rescue 9-1-1" was recently filming in Brookfield, CT. 457.55 and 457.575 were used both for production and traffic control purposes during the filmed recreation of a pursuit. The PD uses 154.800R for their regular traffic.

Danbury Fair Mall Security 464.675R for Security, 464.500S for mall management, and 464.550S as F-2.

More of this contributors info appears in the New York State report. Thank's whoever you are.

Maine Position Open

Here is part 2 of John's (NY-308) frequency list.

Waldo County
154.175 Bath Fire Dept. 156.03 Waldo County Sheriff
154.310 Waldo County Emergency Paging System
Stockton Fire and EMS Freedom Fire Dept. Northport Fire Dept.
154.310 Bath Fire Dispatch
Arrowsic Fire Dept. Phippsburg Fire Dept. West Bath Fire Dept.

York County
33.86 York County Communications Fire Dispatch
Acton Fire and Rescue Alfred Blaisdell Corners East Lebanon Newfield Sanford Fire and Rescue Shapeligh
154.130 Scarborough Fire and Rescue
154.190 York County Communications Fire Dispatch
154.235 Saco Fire Dept. Biddeford Fire Dept.
154.995 York County Communications
Sheriff Units Lebanon Police North Berwick Police
Lebaonon Rescue Limerick Rescue Wilderness Rescue
North Berwick Rescue

State Frequencies
47.34 Maine DOT
151.070 Maine Turnpike South Maintenance
154.310 Statewide Fire
154.650 Maine State Police Augusta Zone 2
154.665 Maine State Police Scarborough Zone 1
154.725 Maine Dept. of Fish and Wildlife
155.535 Maine Police Net 2
155.550 Maine Police Net 5
155.580 Maine Police Net 1
155.970 Maine Dept. of Fish and Wildlife

156.045 Maine State Police Turnpike
159.330 Maine Dept. of Conservation
Weather and Danger Reports. Forest Fire Trucks and Helos. Bolton Hill Base. Streaked Mountain Base
159.45 Maine Dept. of Conservation Bolton Hill Base West Paris Base

Thank's John for a nice contribution.

Massachusetts, Mariner S. Ayer Jr, 299 Thompson St, MA 02346

From a non-member;

Worcester Himmer Ambulance Service, which is based in the City of Worcester provides emergency and transfer services in the greater Worcester Ambulance. They do not provide primary service to the City of Worcester, but do provide back up in the event the city trucks are all tied up.

484.0125 (71.9) _

Code A	Enroute	Code 8	Return to Station
Code 1	Station	Code 9	Phone Call
Code 2	No Lights or Siren	Code 16	Out on Pager
Code 3	Lights and Siren	Code 17	Lunch
Code 4	On Arrival	Code 90	Coffee
Code 5	On the Air	Code 300	Patient is dead

From Jon (MA-227) Boston Police Department Mobile Command Post (YD-300) has the following radios in it, all are Motorola. Syntor X-9000 Low Band on State Police channels, Syntor 800 mhz trunked for Mass. Port Authority trunked system (at Logan International Airport), Syntor X-9000 UHF-T Band on Boston Fire Department frequencies, 3 Syntor X-9000 (one with DVP) UHF on Boston Police frequencies, Syntor X-9000 VHF for Intercity Police (158.970), Syntor X-9000 on UHF-T band for Boston Area Police Emergency Radio Network (B.A.P.E.R.N.), Syntor X-9000 800 mhz trunked on the Metropolitan Police system, Syntor X-9000 and Micor UHF on Boston EMS and Boston C-Med frequencies, Two Cellular phones, and one Bearcat BC 950 XLT scanner. All are mounted in a four bay Motorola Centracom series console. Also mounted is a separate UHF Syntor X-9000 at the driver's position.

Also from Jon comes the revised Metro Radio System code list. This replaces the list printed in the March 1989 issue.

MRS Radio Codes

10-1 Responding
10-2 Cancel Response
10-3 Arrived on scene
10-4 Acknowledgement
10-5 Repeat
10-6 Standby
10-7 Verify address
10-8 Call
10-9 Meet
10-10 Your Location?
10-11 Radio Test (R1 to R9)
10-12 Preliminary Report
10-13 Need Help
Code 1 Urgent
Code 2 Not Urgent
10-14 Disregard Previous
10-15 False Call/No Incident
10-16 Freq. Request
10-17 Fire box # request
10-18 Activity Update
10-19 Monitor Freq.
10-20 Incident under control
10-21 Brush/Woods Fire
10-22 Motor Vehicle Fire
10-23 HazMat Incident
10-24 Gas Leak
10-25 Electrical Fire
Code 1 Manhole
Code 2 Vault
Code 3 Substation
10-26 Ship Fire
10-27 Subway/RR incident
10-30 Fire/Smoke showing
Code 1 Doubtful will hold
Code 2 Probably will hold
10-37 Water incident
10-38 Drowning Search
Code 1 Confirmed
10-39 Aircraft Accident
Code 1 Serious
Code 2 Non- Serious
10-40 Motor Vehicle Accident
Code 1 Serious
Code 2 Not Serious
10-41 Emergency Vehicle MVA
10-42 School Bus Accident
10-43 Med Flight Requested
10-44 Tractor Trailer Accident
10-45 Fatality/Injuries
Code 1 Fatality
Code 2 Serious Injury
Code 3 Minor injury
10-46 Weather Alert
10-47 Avoid area/congestion
Code 1 Flooding
Code 2 Wind Damage
Code 3 Accident
10-48
10-49 Report Road/Weather
10-50 Police Operation
Code 1 Auto Pursuit
Code 2 Foot Chase/Search
Code 3 Raid
Code 4 Other (Specify)
10-51 Suicide
10-52 Demonstration
Code 1 Riot
Code 2 Civil Disturbance
Code 3 Peaceful
10-53 SWAT Team response
10-59 Armed Subject
Code 1 Barricaded
Code 2 With Hostage
Code 3 Other
10-60 Bank Robbery
10-61 Armored Car Robbery
10-62 Armed Robbery
Code 1 Home invasion
Code 2 Business
Code 3 Other (Specify)
10-63Kidnapping
10-64Burglary
10-65Body Found
10-66Rape
10-67Selective Enforcement
10-68Prison/Jail Incident
Code 1 Riot/Disturbance
Code 2 Escape
10-69 Request for K-9 unit
10-70VIP arrival/escort
Code 1 Secret Service
Code 2 State/Local
10-90 Essential Radio Traffic
10-91Use Scrambler
10-95 Unauthorized Radio User
10-96
10-97 Hold Radio Traffic
10-98Resume normal Operations
10-99 Restrict Talk to current incident
10-100 Major Emergency

Code 3 Under Control
10-31 Explosion/Bomb incident
Code 1 Explosion
Code 2 Bomb Incident
10-32 High Rise Incident
10-33 Structural Collapse
10-34 Construction Accident
10-35 Working Fire
10-36 Search for Person
Code 1 Missing
Code 2 Lost
10-54 Homicide
Code 1 Firearm
Code 2 Knife
Code 3 Other (Specify)
10-55 Officer Shot/Stabbed
10-56 Officer in Trouble
10-57 Shot Fired
10-58 A&B Dangerous Weapon
Code 1 Firearm
Code 2 Knife
Code 3 Other(Specify)

Maryland, William Staubs, 756 221st St, Pasadena, MD 21122

Bill reports that he received a list of frequencies and a 10-code fir Cecil County from Louis (NJ-253) which he is readying for inclusion in the newsletter. When it is ready Bill will send it along. Other than that a quiet month in Maryland.

New York City, Phil Caruama, 7225 73rd St, Glendale Queens, New York, NY 11385

This is a list of Rapid Transit Terminology for New York City Transit Authority. The frequencies and "12" codes appeared in the August '89 issue.

Commission Hours - Rush hours or Peak hours

Interval - The time a train is due to arrive at or depart from a terminal or gap point

Headway - Time span between Trains

Leader - A train that is directly ahead of a particular train

Follower - A train that is directly behind a particular train

One Ahead - A train that is ahead of a train that it was scheduled to behind.

One Behind - A train that is behind a train that it was scheduled to be in front of.

Back to Back - Used as above to keep track of trains. Example: if a "D" line train was one behind an "A" line train then two "D" trains would be back to back.

Pocket (Station Pocket) - A portion of track within a station upon which a train may stand for a period of time.

Reroute - Diverging a train from it's normal rout onto another.

Relay (Swing Bring Back) - To move a car or cars from a particular track onto a relay or main line track and return it to an adjacent track.

Relay Track (Tail Track) - A track outside of the station on which a train is placed when being relayed or swung from one station pocket to another.

Siding (Spur Track) - A track between main line tracks used to turn trains, store cars, etc.

Turn (Turn Train) - To discharge all passengers from a train going in one direction and send it back to it's leaving terminal.

Gapped When a train (usually a short one) is off of one contact rail before it is on the succeeding one. Also known as being "off juice" or "off power"

Absolute Block - A section of track governed by a signal upon which a train is not permitted

Work Motors (Horses) Cars that are used to move inoperative or non-motor cars

Extra Train - A train put into service to add to normal service

Gap Train - a train put into service to replace a train which is out of service or to reduce a delay in service

Revenue Train - a regular passenger train

Collection Train - a train which is used to pick up the daily revenue

Light Train - A revenue train that is traveling empty

Work Train (RWMT) - Trains used for repair/maintenance operations

Dump it - Whenever the brakes of the train are put into emergency.

In the Hole - Whenever, for any reason the breaks of a train are put into emergency the train is referred to as being "in the hole".

New York State, Joe Nooney, P.O. Box 30, Valatie, NY 12184

From a new member John (NY-468) comes some info on the Albany County Emergency Control system.

39.58 Emergency Control 154.415R Mobile Relay
The staff at control includes six dispatchers.

Car numbers and Designations

Car 1 Head Coordinator
Car 2 Deputy Chief
Car 5 Operations Coordinator
Car 6 EMS/Rescue Coordinator

Car 3 Communications Coordinator Car 7 Hazmat Coordinator
Car 4 Training Coordinator

Thank you John.

From our mystery contributor this info.

Putnam county New York is switching to high band. 155.985R is being used, 155.985S is F-4, 154.725S is F-10. In reference to the September '89 "PC-76" on 39.12 refers to Putnam County.

Dutchess County, NY is heard occasionally on 460.500.

NYSP Brewster cars (Troop K) are using 154.92 as the car to base frequency. Poughkeepsie cars are still using 155.52. 155.475 is being used in the Newburgh area for car to car and is designated as F-3, which is a departure from normal practice.

New York State EMS Codes

Code 0	Cardiac Arrest Request Team upon arrival
Code 1	Respiratory Arrest Request Team upon arrival
Code 2	Apparent cessation of vital functions for a prolonged period
Code 3	Overdose form drugs Give amount and type if known
Code 4	Patient with symptoms of alcohol intoxication
Code 5	Psychiatric problem -- patient is not restrained
Code 5R	Psychiatric Problem -- patient is restrained
Code 6	Relatives accompanying patient Use discretion in communications
Code 7	Request Police or Hospital Security assistance upon arrival

Liverpool Fire and Ambulance Radios

Channel 1	46.14 Onondaga County Fire Control
Channel 2	46.22 Truck to Truck
Channel 3	46.26 Truck to Truck (Ambulance Channel 3 45.96)
Channel 4	46.42 Liverpool Home Alarm

Fire Control Codes

White	No lights or siren Cardiac Arrest
Red	Lights and siren Cardiac Arrest
Yellow	Bus Accident School or Commercial
Scarlet	Fire started as drill but got out of control send additional units to bring fire under control

If you have written to me and have not got a reply please write again, some addresses got thrown out by accident. That's all for this month.

Pennsylvania, Keith Maydak, 6393, Penn Ave, Pittsburgh, PA 15206

No report from Keith this month.

Vermont, Dan Gilman, 123 Walnut St, Rutland, VT 05701

Dan sends us some Vermont State Police info. He has listed the info according to the area that is covered instead of by troop since he feels that it might be easier for the readers to monitor. Dan would like to hear from any Vermont members with info.

Vermont State Police

Frequency	Area covered
460.150	Orleans, Essex, Caledonia Counties
460.225	Franklin and Chittendon Counties
460.375	Addison, Rutland, and Bennington Counties
460.425	Washington, Orange, and Windsor Counties
460.475	Windham County
460.275	Troop Station to Troop Station -- Statewide
460.325	Correctional Centers -- Statewide
460.500	Troop Station to Car/ Car to Car -- Statewide

Well that's about it for this month. Just a reminder to those who might be interested we have openings for Associate Editors for Maine, New Hampshire, Rhode Island, Washington DC, and Delaware. If you are interested see the directions for applying in "From the Captain's Desk" at the front of the newsletter. If you are living in one of these areas and are not interested in becoming an Associate Editor but you still have some information that you would like to see in the newsletter send it to me and I will print it. Until next month, good bye.

PUBLIC SAFETY NORTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows—Iowa, Kansas, Minnesota, Missouri, Nebraska, North and South Dakota:

Michael W. Scheel, 410 W. Garfield, Davenport IA 52803-1415

Welcome to another column of the north central. First things first I have decided to resign as NC editor. Honestly it is no longer fun to do, and I have other demands on my time from my job and life. I will stay on untill a replacement is named. The last three years have been good and I have enjoyed them. Thank you.

iowa >>>>>

Cedar Rapids misc.
CRFD Hazardous Materials (HAZMAT) Officers are in 90-99 range ?
IHP air units have been heard on 122.75
CR Animal Shelter is using a trunk radio system.
861/862/863/864/865.8125
Iowa County Sheriff uses 151.040 for Sheriff dispatch (primarily at night).

kansas >>>>>
-Steve Jester, 1115 N. Park, Wellington KS 67152

Steve received a letter from a new member. The only information I from the letter I normally would print, I won't because of a possible sensitive nature. So here is the other info. 450.650 Johnny Rollins on many KC area radio & TV stations for traffic reports. 48.00 Johnson County Gas CO. He needs the Johnson County Water CO. and thing on KCPL. He reports Kemper Arena Security on 464.775. Steve says his FCC state index microfliche doesn't show this..
TRACY A. VILES,6411 W.81st STR. OVERLAND PARK KS 66204

minnesota >>>>>
-Jerry A. Ensign, PO Box 28148, Crystal MN 55428-0148-

From Todd Hockert are the following Northwestern MN frequencies:

155.535 Becker County Sheriff
156.210 Cass County Sheriff
155.655 Clay County Sheriff ---Fire/Rescue Paging 154.100
155.595 Flom Repeater, Tri-county usage
154.680 MSP 2900 Base
159.090 MSP 2900 Mobiles
171.575 MSP aircraft
160.335 MSP channel 15 (from JE)
458.250 MSP Portables/Mobile Extender (from JE)
155.085 Moorhead Police channel 3 - Dispatching
155.310 Moorhead Police channel 1 - Coded
155.265 F-M Ambulance Service
154.355 Moorhead Fire Dept.
155.490 Norman County Sheriff
155.070 Ottertail County Sheriff
155.010 Wilkin County Sheriff

Special thanks to all of you that have sent in information and corrections. Some of you have written more than several times. Keep up your hard work that keeps RCMA interesting to read. Anyone planning a trip to MN, is welcome to write for local frequencies -- my readers or myself may be able to provide your answers.

missouri >>>>>

Mike Redman, PO Box 49, High Ridge, Mo. 63049
Greetings! This month we will look at Southwestern Missouri, courtesy of MIKE (MO-131). I have also had the privilege of meeting PHIL, (MO-?) from Springfield, who also has promised to send some material. But first, some other news. Rumor has it that the Missouri State Patrol

is adding inversion type scrambling to its portable radio fleet. This will apparently be selective and not in use continually. If any of you hear any of this, and are able to make a cassette tape, I would appreciate having a copy (I can return or replace your tape). ZEL (MO-048) has also provided additional Northeast Missouri material, and I will be extracting from it in the coming months. Is your part of the state left out? Send in whatever you have- ten codes, car numbers, or whatever- It may be useful!

Anderson .	153.920	Aurora Private Ambulance	154.315(?)
Aurora, 154.220,	155.775	Barry County	155.310
Barton Co. Amb.	155.175	Branson	154.415
Christian Co.	155.565	Butler 155.310, 155.355,	155.820
Clinton 154.340,	154.845	Carl Junction 155.040,	453.100
Coffeyville Hosp.	154.965	Carthage 154.16, 155.610,	158.760
Dade Co. 155.625,	155.895	Cedar Co.154.845,155.115,	155.805
Duenweg Fire	155.025	Greenfield	154.680(?)
Eagle Rock	155.955	Henry Co.	155.865
Forsyth	155.760	Jasper Co.	156.210
Golden City Amb.	155.835	Joplin City Admin.	155.145
Greene Co.	154.755	Joplin City Hall 453.225/	458.225
Greene Co. Fire	154.400	Joplin Fire	154.430
Joplin Ems disp.	462.975	Joplin Ems 463.100,.125,.150,.175	
Joplin PD 154.650,	154.875	Joplin Street Dept.	155.880
Joplin Water	158.220	Lawrence Co. 155.055,	155.145
Lamar	154.785	McDonald Co.	155.790
Marshfield Fire	154.175	McDonald Co. Amb.	155.135(?)
Monette 153.800,	155.415	McDonald Co. Fire	154.355
Mt. Vernon 154.220,	155.085	Mt. Vernon Ambulance	154.115
Neosho PD	155.250	Neosho 154.190,	158.835
Nevada 154.310,	154.815	Newton Co. Car to Base	156.150
Noel	155.640	Newton Co. Sheriff Pvt.	155.700
Osage Beach	154.220	Newton Co. CD	155.085
Pierce City	155.055	Newton Co. Forestry	151.355
Reddings Mill FD	154.175	Sarcoxie	155.925
Seneca	155.775	Stockton 155.805,	154.845
Springfield PD	460.100,	Springfield FD 154.355,	453.100,
460.225, 460.350,	460.400	453.600,	454.050(?)
Springfield CD	154.145	Stone Co.154.040,154.815,	155.565
Table Rock Lake Ptl.	155.580	Taney Co.	155.430
Vernon Co.	155.310	Vernon Co. Ambulance	154.575(?)
Webb City 155.550,	155.805	Webster Co.	155.745
Wheaton Fire	155.820	All County Sheriffs	155.730

See you next month, and don't forget to write! The thought for the month is, "Being lazy will make you poor, but hard work will make you rich." (Pr. 10.4, TEV)

north dakota >>>>>

-position open-

Information from Todd Hockert.

ND has a statewide dispaych center located in Bismark. State Radio as it is called is in a fortified shelter and in case of war or disaster the Governor of the state would go there and could control the state's business from there. But anyway, State Radio has two main channels and also moniter others.
¶Channel 1 is a duplex system with the base tx of 154.935 and mobile tx of 155.430. This channel is used mainly by County Sheriff Dept.'s that do not have their own channel. This channel also hasa repeater that can be 'bought up' on line by the mobile units by using the proper tone sequence with a DTMP. Channel 2 is also duplex and is the primary dispatch for the State Highway Patrol, all APB's and other police information is broadcast here. There is also a repeater here and it is put online by a dispatcher at State Radio. The base tx is 154.905 and mobile tx on 155.505. Channel 3 is National Law Enforcement which is 155.475. There are tower sites interconnected by telephone lines.
¶I hope this helps you in understanding the system here in ND. It is very ggod system for a rural state like ND.

nebraska >>>>>
south dakota >>>>> -position open-

Sioux Falls from John (SD-013)

155.880 SF Fire Dispatch (city paging) 154.190 SF Fire Ch 3
154.235 SF fire CH 1 153.770 SF fire inspectors

460.125 SF Police Dispatch 460.225 SF Police car to car
460.325 SF Police data 460.425 SF Police detectives
460.525 SF Police admin

463.825 SF ambulance 154.415 Minnehaha County Fire
460.025 Minehaha County Sheriff 158.745 Minehaha County CD

39.240 SD HP 39.160 SD HP

HAM repeaters 146.760, 146.880, 147.240, 146.520

misc. >>>>>

that's it for this month. -30-

PUBLIC SAFETY—GREAT LAKES

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Richard McLaughlin (MI-031) 3921 Marland Drive, Lansing, MI 48910

ASSOCIATE EDITORS for the GREAT LAKES

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PO Box 463
Gridley, IL 61744

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2542 Birk Drive
Jasper, IN 47546

KY - position open

MI - Rick McLaughlin MI-031
3921 Marland Drive
Lansing, MI 48910-4325

OH - Oscar Mann OH-222
6800 Mayfield Rd #610
Mayfield Heights, OH 44124-2240

WI - John Johnson WI-084
1905 E Lexington Blvd.
Eau Claire, WI 54701-6673

ILLINOIS

Our AE, Bob, passes on some good information on the Illinois State Fair. This comes to us from Gary IL-73 and John IL-12. Thanks to both of you for sharing this with us.

1989 ILLINOIS STATE FAIR FREQUENCIES
(Springfield, Illinois)

42.5000	KSB-237	IL. State Police ("Fairgrounds" ID) also L-6 aircraft with traffic reports
42.8800		IL. State Police - Dist. 3 units chit-chat
47.4200		American Red Cross ("Main" ID)
151.1600		Executive Security Vehicular Repeater repeats 154.7100
151.5050		a food stand
151.6250		Rod Link Attractions (rides in Happy Hollow)
151.6250		various concession stands
151.9250		fare boxes (Happy Hollow)
151.9550		food-serving supplies business (cups, etc.)
154.6000		? (Happy Hollow)
154.7100		Executive Security Channel 2 on portables - HF3
154.9500		Department of Criminal Investigation ("DCI" ID)
154.9500	KSB-237	IL. State Police ("Fairgrounds on DCI" ID)

155.0550		IREACH - trooper chit-chat
155.0850/158.8650		fairgrounds security & maintenance
155.0850 simplex		fairgrounds security & maintenance
155.2050		Superior Ambulance & "State Fair Hospital" or "Fairgrounds Hospital" (Channel B)
155.2200		Superior Ambulance & Springfield C-MED
155.4600	KSB-237	IL. State Police ("Fairgrounds" ID) also L-6 aircraft with traffic reports
155.5050		IL. State Police Vehicular Repeater repeats low band
155.9250		Grandstand Shows ("Backstage" ID)
158.4000		ride workers (? Skyride)
158.7450		Sangamon County Rescue Squad Auto Race Detail
161.6400		remote broadcast 970-AM/WMAY (Springfield)
161.7000		remote broadcast 104.5-FM/WFMB (Springfield) sister station to 1450-AM/WCVS
161.7300		remote broadcast 1450-AM/WCVS (Springfield) sister station to 104.5-FM/WFMB
171.9050		wireless microphone (band warming up)
450.1500		remote broadcast 1240-AM/WTAX & 103.7-FM/WDBR sister stations (Springfield)
450.8000		remote broadcast 100.5-FM/WYMG (Springfield)
452.5250		Dunbar Towing
453.8750		a few horse racing related transmissions
457.8000		Sangamon County Rescue Squad Auto Race Detail repeats 158.7450
458.8750 simplex		horse-racing track stewards & "Starting Gate" or "Starters Car"
461.1625/466.1625		a film crew ("ISF Base" ID)
463.3000/468.3000		Channel 20/WICS-TV (NBC-Springfield)
464.0625/469.0625		fairgrounds rest room cleaning crews & various fair services (transporting senior citizens, taking photographs, etc.)
464.5000/469.5000		services & security for grandstand entertainers
464.5000 simplex		food concession stand or food wholesaler
464.5000		USAC & ARCA race officials (did not hear) reported by Sangamon County Rescue Squad
464.5500 simplex		services & security for grandstand entertainers
464.5500 simplex		Capital Waste Systems (garbage pick-up) Springfield business
464.5500		ARCA race officials (did not hear) reported by Sangamon County Rescue Squad
466.4250 simplex		gate workers & a van that transported them to and from the gates
469.5000 simplex		pari-mutuel terminal personnel (betting on horse races)
469.5500 simplex		services & security for grandstand entertainers ("Firebird", "Raven", & "Whirlybird" IDs)

The ISP dispatchers who worked the fair were all women. I have been able to determine where some of them were from, because they gave their normal call sign rather than the 'Fairgrounds' call sign of KSB-237. Their call signs were: KSB-233 (District 2, Elgin); KSB-242 (District 3, Chicago); KSA-775 (District 14, Macomb).

There were the usual units heard working the fairgrounds: ISP Walking A thru Walking I; ISP TAC-1 thru TAC-5; ISP K-9 units; DCI Team 1 thru Team 8. I also heard "MEG-30".

1990 fair dates are August 9 thru 19th.

INDIANA

I planned to include a contribution from Mike IN-111 for the Indianapolis area in last month's column. Unfortunately, most of it could not be copied. If anyone wants a copy, drop a S.A.S.E. to me, one stamp will be enough, its only a few pages.

KENTUCKY

Position Vacant

MICHIGAN

Nothing this month.

OHIO

Oscar has had a quiet month, so we don't have anything for you this time.

WISCONSIN

Here is John's information this month...

Wisconsin New Frequency Applications - October, 1989

153.950	Dodge County Fire	154.235	Dodge County Fire
154.280	Dodge County Fire	154.325	Dodge County Fire
154.250	Pelican VFD (Oneida)	154.025	Montello LG (Marquette)
154.085	Lincoln County LG	453.425	Fond Du Lac LG (458.425 in)
150.995	Forest County Hwy	159.060	Forest County Hwy
159.195	Forest County Hwy		

Carl (WI-054) sent in some corrections to some previous new applications published in the October issue. The 854.9625 Sheboygan FD frequency will be a MDT/AVL repeater. The correct frequency for the Walworth Highway Dept. is 33.060. 453.350/458.350 is not Green Lake but Berlin Emergency Gov't repeater. 453.2125 and 458.2125 should be used as a link for Green Bay FD, not the mobiles. Also, 151.100 is for the Town of Sun Prairie Highway Dept. Thanks for sending in the updates Carl! Also, thanks again to Larry for the new ones this month.

Bob (WI-104) and Ernst (WI-024) sent a great list of Milwaukee area frequencies for Jerome, TX-246. I am sure he will appreciate them. I will review some of the frequencies in future columns. Thank you both for this.

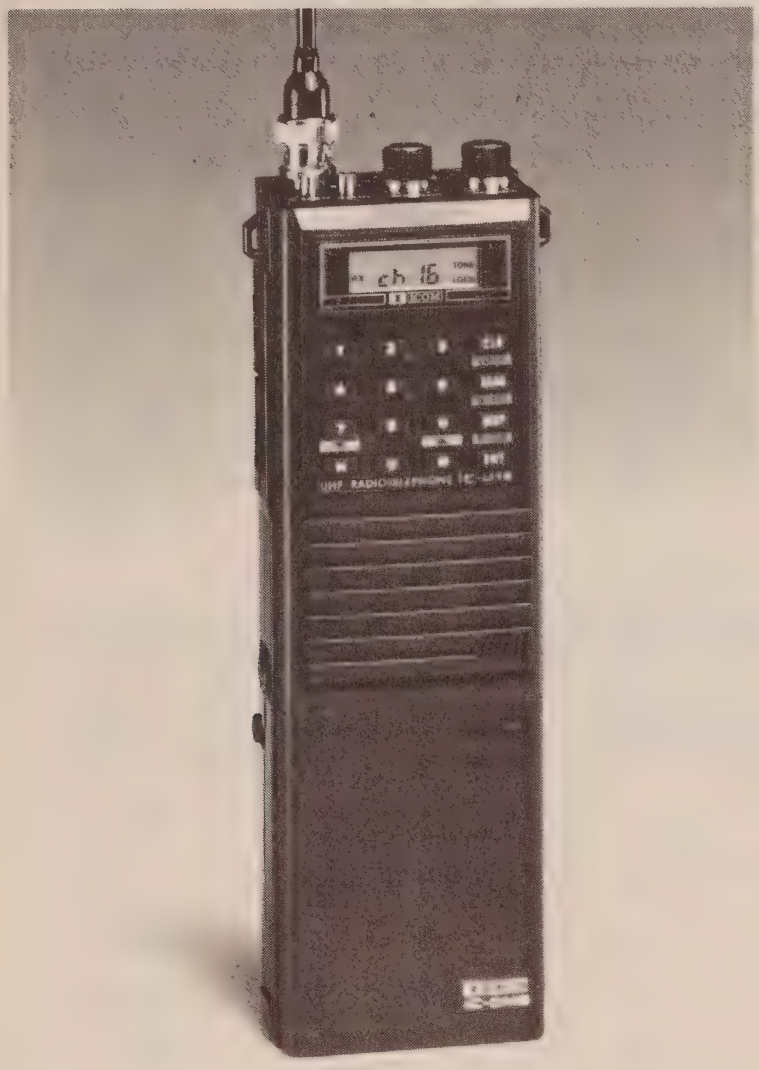
Ernst also sent some frequencies for the Crandon (Forest County) area of Wisconsin. All of the frequencies have been confirmed by Ernst. I'll print some of them this month.

155.730	Forest County (154.650 in) ((New last year))		
155.160	Crandon Area Rescue Squad	39.980	Forest County Hwy
154.190	Crandon FD		
155.640	Shawno & Vilas SD ((Did not hear Langlade this year))		
155.580	Oconto SD	154.235	Oconto FD
155.805	Oconto FD / EMS Paging	151.055	Oconto Hwy

Ernst also stated that Forest SD uses 600 series numbering, and Oconto uses 700 series. Also, last year he heard Langlade very clear on 155.640, but this year did not hear anything. The same goes for Florence SD on 155.580. Possible that we have a couple new frequecies out there? That is it for now. Again, thanks to all that wrote.

That's all for now. Monitoring.... Kirk

UHF HANDHELD
ICOM IC-U16



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MA-029

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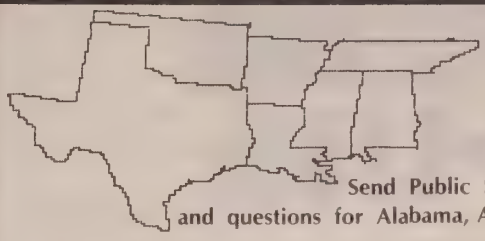


PUBLIC SAFETY - SOUTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details, and questions for Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas to

Ed Lentz, 609 Yorkshire, Pasadena, TX 77503-1450

GEnie - ELENTZ DELPHI - THISARSE COMPUSERVE - 72645,172

WELCOME to 1990. Hope the holidays left you in good shape. I have been reading in the trade magazines that there is a move to standardize the new 800 trunked systems. Communications between departments is now back to using telephones, sometimes Cellular, in some areas where the new 800 systems are being used. Unless all the departments buy from the same manufacture and get on the same system they are unable to communicate by radio. Years of setting up intercity radio frequencies has gone out the window with progress?

I'm still waiting for some of you to send us a list of frequencies from your area. We really need you help in making this a much better newsletter and this can be your contribution. We also are in need of some assistant editors for several states.

ALABAMA

DAVID R. BECK, 422 Laurie Dr., Birmingham, AL 35214

David writes that he hasn't received any input for the State of Alabama. The rest I will quote from David's letter. I would like to hear from all Alabama members out there even it they don't have anything to contribute. Drop me a line and let me know if you're still active, what kind of scanning you do, type of equipment, antennas, etc. Send in your local frequencies you are listening to, but please let me hear from you.

73, Dave

ARKANSAS

In our never ending search for the new frequency plan for the State of Arkansas State Police, we have received word from Jeff (AR-10) that Troop K is using 858.8875 as a mobile phone and 858.8125 as base in the Hot Springs area. This could change the information printed a couple of months ago. I wasn't aware of any phone patch frequency being used at the time of our 65 MPH trip through Arkansas. I don't remember monitoring anything that sounded like it could be a phone patch so I don't think I have any of them. Does anyone else have more information to help sort out the State Police system?

LOUISIANA

JEFF WALDROP, 1018 Bee Tree, Westlake, LA 70669

No sendee, no readee.....

MISSISSIPPI

Surprise, surprise. It's been so long since anything was printed in the newsletter for the State of Mississippi that I had completely forgotten that it was part of my column. Received a letter from Fred (AL-037) listing some of the frequencies from the Hattiesburg area that he monitored during a trip there. Thanks, Fred; if you have any more frequencies be sure and send them in.

155.655	Hattiesburg Police
155.730	Hattiesburg Police
154.445	Hattiesburg Fire
45.180	Forrest County Sheriff (base)
45.300	Forrest County Sheriff (mobile)
45.220	Statewide Sheriffs Network
42.160	Mississippi State Highway Patrol (base)
42.240	Mississippi State Highway Patrol (mobile)

OKLAHOMA

JAY KRUCKENBERG, Rt. 2 Box 31, Mooreland, OK 73852

Quite a bit of excitement has gone on around here the last few weeks. On Sept. 30, 1989, a Oklahoma Highway Patrol Trooper was shot while making a traffic stop about 10 miles south of Mooreland, OK. A Mooreland police officer heard the call for help and while en route to the scene he happened to spot the suspect's car and gave chase. The car he was pursuing ran off the road and into a canyon, the suspect got away on foot. For the next 51 hours one of the biggest manhunts in Oklahoma history got underway.

The OHP mobile command post was on the scene and was very impressive. Inside were 14 various radios, all of which were programmable. With these various radios the OHP has the capability to operate on any frequency between 30 and 1000 MHz. On the outside were 14 various antennas ranging from a VHF low band to VHF high band to UHF. The main antenna was on top of a 40 foot telescopic antenna mast. This mast was raised and lowered by a motor located at the base and took only 2 minutes to erect. Back inside the mobile command post was a map of the area being searched, several desks and

one big radio room. Also in the radio room were 3 mobile telephones and 2 regular telephones.

The communications taking place were with various polices agencies involved, with the officers on the road block assignments, and with the tact teams out in the middle of a 10 square mile area where the suspect was believed to be.

The following frequencies were in use during the manhunt.

44.700	Main OHP Base Frequency
44.900	Main OHP mobile frequency, mobile to base
45.220	Mobile command post to units on special assignment
5.180	Mobiles to mobile command post on 45.220
2.320	OHP internal affairs/minor talk, not used much
42.600	OHP internal affairs/not much interesting here
155.490	Communications with other police agencies
155.475	Tact teams

Now more from Richard (OK-053) and his list from the Tulsa area. This month I will list some of the various police departments around Tulsa.

154.860	Claremore PD	155.670	Skiatook PD
155.670	Claremore PD	460.200	Owasso PD
155.250	Skiatook PD	155.700	Owasso PD
155.490	Skiatook PD	155.775	Owasso PD

That's all for this month.

TENNESSEE

CURTIS HARBIN, P.O. Box 5576 EKS, Johnson City, TN 37603

New SMR system up and running for Washington County and Johnson City. Citizens Irate. Nothing else new from the State of Tennessee.

TEXAS

ROBERT BARKER, 1801 Wells Branch Pkwy #1630, Austin, TX 78728

Before I turn this over to Robert I have read that the City of Corpus Christi will be going to a new 800 system in the very near future. Also the city of Houston has temporarily lost their 800 allocations due to no-use. Now I will turn this over to Robert.

Hello Texas and Seasons Greeting to all. Not much to report this month. I got a letter from Russell who reports that the new Fiesta Grocery store in his area using 465.550 - very unusual. At first there was some thought as to whether this was actually correct, but after much checking it was indeed the actual frequency. Honestly, I'm down right surprised that the FCC would permit such a thing. HFD is licensed for 460.550 and up until about a month or so ago it was still being used. I just can't believe that the airwaves are getting so crowded so as to need to place businesses on the fire band. Well enough said. Richard (IL-285) wrote to request frequencies for the Dallas area. Richard was especially looking for frequencies used at the Cotton Bowl. I was able to provide him with a copy of Brad's (OH-132) DFW list. As far as the Cotton Bowl area I have the following in my notes from Kelly:

TEXAS Stadium

154.515	Security
154.600	Parking
154.570	General Use

It should be noted that the last two frequencies are itinerant listings and are commonly found at all events.

State Fair	**Arlington Stadium**	**Reunion Arena**
464.725	464.5375	463.3875
464.425	464.875 Old	

Edward (OK-047) writes to let readers know that he enjoys following storms. He recommends an interesting book available from the U.S. Govt. Printing Office (title 47 C.F.R. Parts 70-79). It contains info on emergency broadcast system procedures as well as the rules and regulations on Radio and T.V. broadcasting. Edward wants to remind everyone that the highway department is often neglected by scanner listeners. It's a good idea to know the frequencies they might be suing to familiarize your self with what you need to listen to when the weather gets bad. In his area of Wichita Falls, the highway department can be found on 151.115, in other areas check around 47.XX for traffic. Finally, my last letter comes from Gary (TX-240). He has rather a extensive tentative 800 MHz frequency allocations for the DFW area. If you write to me, I'll be glad to get you a copy. Gary also sends some Collin and Denton CO Sheriff Dept radio call numbers.

COLLIN COUNTY

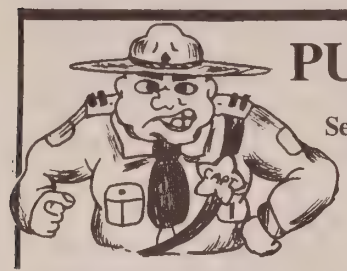
Celina	450	Parker	670
Princeton	601 - 606	Farmersville	801 - 810
Josephine	841	Murphy (night)	470

DENTON COUNTY

Argyle	850	Aubrey	370
Corinth	320	Double Oak	190
Eastvale/Colony Pd/		Justin	890 – 898
Hickory Creek	200	Krum	550
Little Elm	120	Pilot Point	150
Sanger	770	Lake Dallas	100 PD
Lake Cities	4501 – 4508		
(Lt. and Capt.)			

I have a request for frequencies for the Texarkana area from Ron (TX– 250). Ron writes from the Houston area to request a list of frequencies which I was more than happy to provide. If there are any readers who request special frequencies, perhaps there is someone out there that knows the answer.

Well, that about raps it up for this month. I hope everyone doesn't eat too much this holiday season. Happy Monitoring.



PUBLIC SAFETY—SOUTH EAST

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows—Florida, Georgia, N. Carolina, S. Carolina, W. Virginia and Virginia:

Robert K. Cooke, 717 Seven Oaks Ln, Columbia, SC 29210

Compuserve –76340,2105 GEnie – R.Cooke5

Welcome to the January 1990 edition of PS/SE. I hope all of our members had a happy holiday and received some new toys. We have material from almost every state represented by this month's column. South Carolina is still recovering from the effects as I'm writing this column in late October but by the time you read this the rebuilding process will be underway. I want to thank again all of the fine people who have contributed to the effort in this time of need. I also want to offer my support to all the RCMA members in the Bay area who suffered losses due to the earthquake. Our thoughts are with you.

From Edward (FL–228)

Sarasota County, Florida

154.770	Sarasota County Sheriff	Ch. 1
154.875	Sarasota County Sheriff	Ch. 2
154.950	Sarasota County Sheriff	Ch. 3
155.175	Sarasota County Sheriff	Ch. 4
155.370	Sarasota County Sheriff	Ch. 5
460.025	Sarasota County Sheriff	Ch. 6
046.160	Metro Sarasota Fire Rescue	Ch. 2
046.360	Metro Sarasota Fire Rescue	Ch. 3
046.060	Sarasota County Fire Intercom	Ch. 1
154.235	Sarasota City Fire/Rescue	Ch. 1
154.310	Sarasota City Fire/Rescue	Ch. 2
154.280	Sarasota City Fire/Rescue	Ch. 3
460.075	Sarasota Police Dept.	Ch. 1
460.125	Sarasota Police Dept.	Ch. 2
460.175	Sarasota Police Dept.	Ch. 3
462.975	South County Ambulance SVC	MED–10
463.175	Sarasota E.M.S. (Operations)	MED–08

From Steve (GA–103):

Georgia Statewide Public Safety

042.1800 + GA Alcohol Beverage Control		Ch. 1
155.5050 + GA Bureau of Investigations		Ch. 1
154.8150 + GA Bureau of Investigations		Ch. 2
045.5600 + GA Disaster Preparedness		Ch. 1
151.1000 + GA Highway Dept.	Construction	Ch. 2
047.3200 + GA Highway Dept.	Maintenance	Ch. 1
047.3400 + GA Highway Dept.	Maintenance	Ch. 2
151.0850 + GA Highway Dept.	Survey/Testing	Ch. 1
031.3000 + GA Natural Resources	Enforcement	Ch. 4
031.2200 + GA Natural Resources	Environmental	Ch. 3
031.1000 + GA Natural Resources	Game & Fish	Ch. 1
453.2250 + GA Natural Resources	Operations	Ch. 4
031.1400 + GA Natural Resources	Park Rangers	Ch. 2
155.0800 + GA Natural Resources	WALKIE TALKIE	Ch. 1
156.8700 + GA Natural Resources	WALKIE–TALKIE	Ch. 2

156.9300 + GA Natural Resources	WALKIE-TALKIE	Ch. 3
159.3900 + GA State Forestry	Air/Ground B/M	Ch. 8
159.2850 + GA State Forestry	Aircraft M/B	Ch. 10
151.1450 + GA State Forestry	District Net	Ch. 3
151.2800 + GA State Forestry	District Net	Ch. 4
151.3700 + GA State Forestry	District Net	Ch. 5
151.4000 + GA State Forestry	District Net	Ch. 6
159.2550 + GA State Forestry	Ground M/B	Ch. 10
159.3600 + GA State Forestry	Lookouts B/M	Ch. 7
151.2050 + GA State Forestry	State Net	Ch. 1
171.4250 + GA State Forestry	State Net	Ch. 1
151.4750 + GA State Forestry	State Net	Ch. 2
172.2750 + GA State Forestry	State Net	Ch. 2
154.6800 + GA State Patrol	(Primary)	Ch. 1
154.8000 + GA State Patrol	Mobile/Base	Ch. 2
155.9100 + GA State Patrol	Atlanta	Ch. 5
042.0200 + GA State Patrol	Intersystem	Ch. 4
153.7400 + GA State Prisons	Operations	Ch. 1
155.4750 +N.L.E.E.F.	Base/Base	
154.9350 + Sheriff's Inter-City	Base/Base	Ch. 4
154.9050 + Sheriff's Inter-County	Base/Mobile	Ch. 3
155.3700 + Statewide Intersystem	Base/Base	

From Peter (NC-097):

Frequency	Service	Name	City
42.5200	Police	Highway Patrol - Base	Zone 3
42.6200	Police	Highway Patrol - Base	Zone 1
42.6400	Police	Highway Patrol - Base	Zone 7
45.4400	Traffic	Durham	
46.5400	Police	Durham	
153.740	Police	Durham	
153.770	Fire	Dispatch Orange City.	
153.935	Airport	RDU Raleigh	
154.025	Airport	RDU Raleigh	
154.040	Local Gov't	Chapel Hill	
154.130	Fire	Dispatch Durham	
154.175	Fire	Carrboro	
154.190	Fire		Wake City
154.235	Fire		Cary
154.295	Fire		Wake City
154.310	Fire	Durham City	
154.370	Fire	Raleigh	
154.400	Fire	Dispatch Orange City.	
154.875	Police	Raleigh	
155.145	Security	RDU Authority Raleigh	
155.160	Rescue	EMS Durham	
155.280	Rescue	EMS	Statewide
155.340	Rescue		Wayne
155.520	Police	Sheriff	Wake
155.640	Airport	RDU Raleigh	
453.050	Police	Chapel Hill	
453.200	Police	Sheriff	Durham
453.275	Police	Chapel Hill	
453.300	Police	Channel 1	Durham
453.425	Security	UNC Chapel Hill	
453.500	Police	Channel 3	Durham
453.625	Police	Chapel Hill	
453.700	Police	Channel 4	Durham
453.900	Fire	Durham City	
453.975	Fire	Chapel Hill	
458.300	Police	Durham	
460.075	Police	Cary	
460.125	Police	Raleigh	
460.250	Police	Raleigh	
460.350	Police	Raleigh	
460.500	Police	Raleigh	
460.525	Police	Garner	
460.925	Security	Brentwood Area Patrol	Raleigh
462.375	Police	Raleigh	
462.950	Rescue	EMS	Wake
463.175	Rescue		Orange City.
464.350	Rescue	Lifeflight Helicopter	Durham

464.900	Security	Duke University	Durham
465.500	Police		Raleigh
468.175	Rescue		Orange City.

From Julien (nonmember):

Listing of Fire Departments in Northern Virginia

Charlottesville Fire DepartentT Dispatch Freq. = 46.46MHz

Station 1 = Albemarle County (Engine 7 & Engine 10)
Station 2 = East Rivanna VFD (Keswick, Va.)
Station 3 = North Garden VFD (8 miles south on Rte. 29)
Station 4 = Earlysville VFD
Station 5 = Crozet VFD
Station 6 = Stony Point VFD (6 miles north on Rte. 20)
Station 7 = Scottsville VFD
Station 8 = Seminole Trail VFD (1 mile north on Rte. 29)
Station 9 = Charlottesville–Albemarle Airport

Culpeper Fire Department and Rescue Squad Dispatch Freq. = 33.82MHz; Freq. 2 = 33.88MHz

Company 1 = Culpeper VFD
Company 2 = Brandy Station VFD
Company 6 = Richardsville VFD and R. S.
Company 8 = Salem VFD and R. S. (6 miles west on Rte. 522)
Company 10 = Rapidan VFD (Orange/Culpeper Cty. line on Rt. 615)
Company 11 = Culpeper Rescue Squad

Fauquier Fire Department and Rescue Squad Dispatch Freq. = 46.50MHz

Company 1 = Warrenton VFD
Company 2 = Remington VFD and R. S.
Company 3 = Marshall VFD
Company 4 = The Plains VFD and R. S.
Company 5 = Upperville VFD
Company 6 = Warrenton R. S.
Company 7 = Catlett VFD
Company 8 = Goldvein VFD
Company 9 = Marshall R. S.
Company 10 = New Baltimore VFD
Company 11 = Orleans VFD
Company 12 = Cedar Run R. S. (Catlett)
Company 13 = Lois VFD (Rte. 17 near Rte. 28)

Rappahannock Fire Department and Rescue Squad Dispatch Freq. = 33.82MHz

Company 1 = Washington VFD and R. S.
Company 2 = Sperryville VFD
Company 3 = Amissville VFD
Company 4 = Flint Hill VFD
Company 5 = Castleton VFD
Company 6 = Rappahannock unit at Warren County line
Company 7 = Sperryville R. S.

Orange County Fire Dept. Fire Dispatch Freq. = 33.82MHz; Rescue Dispatch = 155.235MHz

Company 21 = Mine Run VFD
Company 23 = Orange VFD
Company 24 = Gordonsville VFD
Company 25 = Barboursville VFD
Company 29 = Lake of the Woods VFD and R. S.

From Gifford (WV–Nonmember):

Huntington, West Virginia Area

462.9750 + Appalachian E.M.S.	Dispatch Med–10
462.9500 + Appalachian E.M.S.	Dispatch Med–9
468.1750 + Appalachian E.M.S.	Operations Med–8
154.8450 + Barbourville Police Dept.	Main Patrol Ch. 1
155.4150 + Barbourville Police Dept.	Main Patrol Ch. 2
155.4000 + Cabell County E.M.S.	Dispatch Ch. 2
463.1750 + Cabell County E.M.S.	EMS/Hospital Med–8
155.3550 + Cabell County E.M.S.	Operations Ch. 1
155.2200 + Cabell County E.M.S.	Operations Ch. 5
155.3850 + Cabell County E.M.S.	Operations Ch. 6
155.3400 + Cabell County E.M.S.	Regional Ch. 3
045.2400 + Cabell County Fire Dept.	Fire (east) Ch. 1
045.5600 + Cabell County Fire Dept.	Fire (west) Ch. 2
039.9800 + Cabell County Sheriff	Intersystem Ch. 2
039.8400 + Cabell County Sheriff	Main Patrol Ch. 1
155.1750 + Cabell Emer. Scuba Team	Operations Ch. 1
155.6550 + Ceredo Police Dept.	Main Patrol Ch. 1
154.3850 + Ceredo/Kenova Fire Dept.	Operations Ch. 1
153.7700 + Huntington Fire Dept.	Fireground Ch. 1
154.2500 + Huntington Fire Dept.	Operations Ch. 3
154.4300 + Huntington Fire Dept.	Repeater Ch. 2
155.2500 + Huntington Police Dept.	Investigators Ch. 1
155.5200 + Huntington Police Dept.	Main Patrol Ch. 2
156.1500 + Huntington Police Dept.	Secondary Ch. 3
156.2100 + Huntington Police Dept.	Secondary Ch. 4

158.8500 + Huntington Police Dept.	Secondary Ch. 5
159.0300 + Huntington Police Dept.	Secondary Ch. 6
155.7450 + Kenova Police Dept.	Main Patrol Ch. 1
155.1000 + Lavalette Fire Dept.	Operations Ch. 1
039.9000 + Lincoln County Sheriff	Main Patrol Ch. 1
039.9800 + Logan County Sheriff	Intersystem Ch. 2
039.9000 + Logan County Sheriff	Main Patrol Ch. 1
155.3100 + Marshall University Police	Main Patrol Ch. 1
154.7850 + Marshall University Police	Secondary Ch. 2
031.8600 + Milton Fire Dept.	Operations Ch. 1
031.9800 + Milton Fire Dept.	Operations Ch. 2
039.5400 + Milton Police Dept.	Main Patrol Ch. 1
046.0600 + Ona Fire Department	Operations Ch. 1
039.8200 + Wayne County Sheriff	Main Patrol Ch. 1
039.9200 + Wayne County Sheriff	Secondary Ch. 2
154.1300 + Wayne Fire Department	Fireground Ch. 2
154.2200 + Wayne Fire Department	Operations Ch. 1
154.7850 + West Virginia Corrections	Primary Ch. 1
155.3100 + West Virginia Corrections	Secondary Ch. 2
039.9800 + West Virginia Sheriff's Net	Intersystem Ch. 2
042.2600 + West Virginia State Police	Car/Car Ch. 3
042.1000 + West Virginia State Police	Primary Ch. 1
042.1200 + West Virginia State Police	Secondary Ch. 2
155.4300 + West Virginia Turnpike Police	Primary Ch. 1
156.1500 + West Virginia Turnpike Police	Secondary Ch. 2

From Gregg (SC-030)

Clemson, SC Area

460.350	Town of Central Police Dept.	460.175	Oconee County Sheriff
155.055	Clemson University Operations	460.250	Oconee Co. Sheriff Regional
453.250	Clemson University Operations	460.275	Oconee County Sheriff
460.925	Clemson University PD	155.220	Pendelton Rescue Squad
154.725	Clemson University FD/EMS	460.150	Pickens County Sheriff
460.950	Clemson Univ. Athletics Dept.	460.250	Pickens Co. Sheriff Regional
460.350	City of Clemson Police Dept.	460.450	Pickens County Sheriff
154.415	Easley Fire Dept.	154.070	Pickens County Fire Dept.
154.845	Easley Police Dept.	155.115	Pickens County Local Gov't
155.220	Easley Rescue Squad	155.175	Pickens County Rescue
155.340	Easley Rescue Squad	155.220	Pickens County Rescue
460.150	Town of Liberty Police	154.310	Town of Seneca Fire Dept.
155.220	Liberty Rescue Squad	460.275	Town of Seneca Police Dept.
154.130	Oconee County Fire Dept.	460.275	Walhalla Police Dept.

The University Fire Department also serves the town of Clemson, according to Gregg. Well, that covers the material for this month. Please continue to send anything you have to your Associate Editor for your state and I'll do my best to get it in ASAP.

BEST OF MONITORING

Happy New Year (that's 1990, folks!) from the staff of PS-CA. Gary and I would like to wish the best to all for the upcoming year and the new decade. We hope that everyone will make a New Year's resolution to send something in this year. Enough of that, we'll now place all frequencies on stand by for routine traffic, and bring up the link to Gary and Data Channel North...

Continue onto Lake Tahoe from Jamestown:

153.800 Sonora PD	45.320 Calaveras SO
155.715 Sonora PD (Tac)	158.910 Angels Camp Police
154.920 CLEMARS	154.235 Angels Camp Fire
151.175 CDF Net	45.600 Amador SO @ Jackson
155.295 Sonora Amb & Fire Net	45.740 Amador SO @ Jackson (Ch 2)
42.560 Sonora area CHP	155.595 Amador SO @ Jackson (Tac)
42.720 Sonora area CHP	151.190 CDF Jackson area

Program trip from Los Banos to Jamestown and onto Lake Tahoe by way of HWY 120 & HWY 49 & 88 & 89 & 50:

462.975 Amador/El Dorado Co EMS	154.845 El Dorado SO (Extenders)
153.800 Alpine SO @ Kirkwood ski	171.525 El Dorado NF
154.890 Alpine SO/Douglas (NV) SO	172.325 El Dorado NF
151.925 CDF Kirkwood	415.575 El Dorado NF Rangers
463.175 EMS @ Kirkwood area	415.250 El Dorado NF Rangers
462.950 Alpine SO (Med 9)	415.325 El Dorado NF Rangers
45.500 El Dorado SO (S/Tahoe)	415.225 El Dorado NF Rangers
45.100 El Dorado SO (S/Tahoe Tac)	171.575 Tahoe NF
45.300 El Dorado SO (Tac)	415.450 Tahoe NF Rangers
46.420 El Dorado CoFD	419.650 Tahoe NF Rangers
415.475 Tahoe NF Rangers	42.940 Nevada HP
419.150 Tahoe NF Rangers	42.780 Nevada HP
417.650 Tahoe NF Rangers	42.880 Nevada HP
42.480 CHP Meyers area	464.450 Caesars Tahoe Casino
42.680 CHP Meyers area	155.520 Washone (NV) SO
42.340 CHP Blue	155.310 Washone (NV) SO
42.180 CHP Blue (Mobile input)	156.800 Washone (NV) SO Lake Ptl
156.030 S. Lake Tahoe PD	157.100 Washone (NV) SO Lake Ptl
154.650 S. Lake Tahoe PD	462.775 Harrahs Tahoe
153.950 S. Lake Tahoe FD & Medics	151.655 Harrahs Tahoe
154.515 High Sierra Patrol (Tahoe)	462.750 Harvys Tahoe
154.920 S. Lake Tahoe PD (CLEMARS)	154.600 Sahara Tahoe
155.790 El Dorado SO (Det. Tac)	157.740 Sahara Tahoe
155.295 Lake Tahoe Ambulance	151.160 Nevada Fish & Game

This is a report on street gangs. It was written by a police officer who wishes to remain anonymous. He writes from a Northern California perspective. It does not cover satanic worship or religious cults, as they are very rare & offer no real significance for radio monitoring. This is not intended as a comprehensive report, rather a quick summary

Growing up, did you belong to a little league or other sports teams? If so, you were part of a gang. Boy Scouts, church groups, 4-H, are all gangs. In fact, gangs are amazingly similar to football teams, where loud mannerisms and rough deeds soon gain respect. They all share some common factos including social, emotional and physical outlets. But not all groups use these factors for positive ends.

Motorcycle Gangs: The most famous, the HELLS ANGELS are now considered by law enforcement to be organized crime. Their chief interest is making and laundering money from drug trafficking. Except for funerals or special events, it is rare to see an Angel on his Harley "flying his colors" (riding on the street with his logo vest). Many smaller biker gangs such as MOFO MEN & GYPSY JOKERS have all but disappeared. The only true motorcycle gang remaining is the MISFITS. They are heavily into secret meth labs, booby traps, and monitoring police tactics and the activites of even individual offiers to avoid detction and arrest. They live up to the traditional profile of wild bikers. There are some small local clubs, they are of little criminal significance beyond their limited geographical area.

White Supremacy Gangs: White Aryan Race (WAR).They are trully a fringe group, most active in the West and Northwest. Their numbers are few. Their chief unifying theme is white race supremacy, or in the negative racism. The older adult groups are fanatical about their right to bear arms, their refusal to pay income taxes, fighting excessive government regulations and keeping the Aryan race pure. Basically, they just want to be left alone.

Welcome to 1990. This will be a great year! I promise to take you to places not yet travelled. There will be a meeting for Sacramento area monitoring enthusiasts on Saturday March 10th at 10:00 AM. The meeting is open to all and will be held in the classroom on the ground floor of the RED CROSS building at the northeast corner of Watt Avenue and Folsom Boulevard. Access is off of Folsom east of Watt. The agenda is wide open!

The meeting for Northern California scanner buffs is planned for May 12th. It will be a picnic affair at the Glenbrook Park on La Riveria Drive. Get a AAA map for Sacramento and look for the US 50 and Watt Avenue interchange. I know I am a bit prejudiced, but Sacramento seemed to be a good central location. In the event of inclement weather, we will meet at the Red Cross building. Please try to arrive by noon. There will be a late afternoon tour around 3:00 PM of the communication dispatch center in Sacramento. There is a limit of 20 for the tour, so please RSVP early by calling me evenings at (916) 381-6602. Be advised the machine answers after the fourth ring. Everyone is welcome, so spread the word among your monitoring friends. You might want to bring copies of your local frequencies to trade. There will also be an IBM Compatible computer on hand to copy and trade floppies (5.25) of databases, etc. In fact, we will have some serious discussion about starting a comprehensive Northern California database. Remember, I said picnic, so bring your own food and supplies.

Special attention Sacramento area: City Fire has changed their primary dispatch channel to 153.890 MHz (input 158.865 MHz). The old dispatch frequency of 153.950 MHz (158.760 MHz in) is now used as "Channel 2" for tactical operations on most major fires and events. It seems they wanted the ability to tape-record major operations for training and legal documentation purposes. Since it is the only tactical channel with a repeater, they can now hear & tape the handheld radio traffic. Pretty clever of those folks at City Fire!

I am sure that most of you had a very interesting 24 hours after the Bay Area earthquake. Ironically, I spent my time at OES and the Red Cross office. I didn't get to hear much! I would be very interested in hearing from the monitors in the SF Bay area as to what channels were most active. I suspect that the National Guard, FEMA and media channels were almost non-stop.

From ROD [CAMR-006]: He wrote to sing praise for his Bearcat 950 XLT. He travels frequently an it seems that the optionally tone encoder really cuts out the garbage. He has compiled several travel lists to use as he travels from one area to another. Great idea Rod! I have selected his Los Banos to Lake Tahoe, via the Jamestown route for this month's column. More in the future. My crystal ball foresees the day that we will be able to type an itinerary into our computer and out comes the frequency list for all agencies along our route. 1991?

Program trip from Los Banos to Jamestown and onto Lake Tahoe by way of HWY 120 & 108 onto HWY 49 to HWY 68 to HWY 89 to HWY 50:

154.890 Merced SO
154.815 Los Banos PD
154.400 Merced Co FD
158.805 Newman PD & Ceres PD
155.685 Livingston PD
42.880 Merced Co CHP
42.660 Merced Co CHP
158.730 Stanislaus SO (Primary)
158.865 Stanislaus SO (Ch 2)
158.790 Stanislaus SO (Tac)
153.770 Stanislaus CoFD
158.850 Turlock PD
158.910 Turlock PD (Tac)
154.920 CLEMARS
42.520 Stanislaus CHP (Modesto)
42.300 Stanislaus CHP (Modesto)
460.375 Modesto PD (Primary)
460.500 Modesto PD (Records/Tac)
460.175 Modesto PD (Tac)
460.025 Modesto PD (UHF CLEMARS)
155.940 Modesto FD
159.090 Riverbank PD (Ch 2)
158.760 Oakdale PD (Primary)
159.150 Escalon PD
151.175 CDF
45.420 Tuolumne SO (Primary)
45.540 Tuolumne SO (Ch 2)
155.595 Tuolumne SO (Tac Ops)
155.295 Tuolumne Co Med Net
462.950 Tuolumne Co Med Paramedics
453.850 Jamestown Correction Facl
453.325 Jamestown Correction Facl
155.505 Jamestown Correction Facl
42.340 CHP Blue
42.180 CHP Blue (Mobile input)

The younger skinhead groups usually flounder, as there is rarely a leader that can keep the group together. As they grow up, most return to the mainstream of society. They love the publicity and media attention. They are basically kids starved for someone to pay attention to them.

Black Gangs: Most notable are the CRIPS and the BLOODS. They have been thrust into the spotlight, because of the dramatic use and profits from rock cocaine. As in any organization, those with smarts and charisma, soon rise to the leadership roles. Beacuse of intense police and media attention, they are actually trying for a lower profile. They refer to themselves as "crews" or teams. (Are you crewin'?) Why do they succeed? They offer kids from single parent and/or abused homes the attention, emotional and physical security they are lacking in their environment. If the neighborhood is controlled by Crips, you can join or get beat up often. Real often. It's the same mentality that bred prison gangs; there is security in numbers. They are very individually oriented, and they will lash out at anyone, including their own members. Violence is compulsive and ruthless. The name of the game is drugs, money, cars and women. Mainly money. They are becoming more sophisticated, at least at the higher levels. They launder drug profits thru record companies, rock concerts and similar flashy activities. They now are dealing directly with the Columbian cartel. They may soon move into the organized crime mode, much as the Italians did 50 years ago. Only then it was bootlegging booze as an escape from the ethnic slums.

Their street names and graffiti, are meant to impress others, i.e. Big Daddy, Mr. T, Dr. Bad, or Satin. Blacks will use other to make them money. A black teenager standing on the corner of a white neighborhood will attract (police) attention. But a 20 year old white sitting in his van or 4X4 is cool. So guess who becomes a dealer for the Crips?

Asian Gangs: Members are into extortion, auto burglaries, stealing luxury autos and residential armed robberies. Very tightly organized. They will never roll over on a fellow gang member. With no particular "turf", they go wherever they can find easy victims and exciting toys (electronics, or cars). They don't use "colors" but do dress in expensive clothes, e.g. leather jackets and jewelry.

Hispanic Gangs: They have traditionally been more group and culture oriented. Very tight relationships, real friendships. They see themselves as protecting their own neighborhoods and cultural pride. They often use street graffiti to mark turf boundaries. Street names (monikers) tends to reflect the personality of the personality of the person (i.e. Stoner, Simley, Loco). In their graffiti, the number 13 refers to Northern California, the number 14 to Southern California.

In general, graffiti usually deals in acronyms. KGB means killer green buds (marijuana). SOS is Skinheads of Sacramento. Gangin' or Cripin' or Crewin' means are you into gangs? The colors, blue and red are significant. Ask the neighborhood kids what it means. For example, UBN stands for United Blood Nation. Of course, much of it is meaningless jibberish. Mispelling is common because of the low level of reading and English skills. Learn to read graffiti. It is very interesting and a skill to be honed.

Gangs are like any business. They want to expand into new areas for increased growth and sales. Many cities have seen a recent increase in gang activity, including Modesto, Fairfield and Santa Rosa. There is a very active law enforcement intelligence network which is aiding in the fight against gangs. The data is almost overshelming. But there have been some real progress in tracking individual gangs members who move freely around the state.

Conclusions: To keep current, read your newspaper, watch for magazine articles and talk to the local teenagers. Visit your bookstore or library. Many books & magazine articles are coming out on this topic. A final word of caution. Gangs are very serious business. They would kill you in an instant for no particular reason. Don't take chances. Never go to a crime scene or stand around if the circumstances seem out of the ordinary.

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PUBLIC SAFETY - CALIFORNIA continued

Now switching to the Data Channel South: From ED [CARI-013]: The Inland Empire can now boast of their own air traffic reporter. KRSO (590 AM) has their own airborne traffic reporter, Eric Scott Lancaster, who covers traffic conditions exclusively for the Inland Empire area. "Captain Scotty" flies the skies in a Cessna 150 and gives other news reports from the air, as well regularly scheduled traffic reports. At the time of this printing, KRSO was conducting a contest to give a name for the plane. (We would like to know what they came up with!) And Ed would also like to know what frequency is used for these reports.

And the CHP is conducting tests to determine if a CHP helicopter should be permanently be assigned to the desert region. The CHP during mid-October to mid-December 1989 will be flying in the Coachella Valley to determine if the helicopter program is justified. In addition to traffic enforcment, the helicopter will be used primarily for life-saving missions. The helicopter, a Bell L-206 Long Jet Ranger will be based at CHP Indio & will be staffed for 10 8-hour shifts per week. Funds for the $60,000 program will be provided from statewide vehicle registration fees. Riverside SO will also be implimenting a helicopter program in the Coachella Valley, but RSO's ship will be geared for patrol functions than traffic enforcement.

From CHARLES [CALA-440]: In a follow up article from the extensive SLO profile (refer Oct 89 and Nov 89 PSCA), the residences of Lodge Hill area of Cambria recently met with the Cambria Community Services District (CCSD) officials to protest the contstruction of a radio tower in that community. Cambria Fire officials would like to place the 50-foot tower to aid in communications between SLO County Fire and the Cambria FD, adding that "dead spots" could lenghten emergency response times. Residents are concerned that the tower (to be erected near power lines) could pose a safety hazard as well as becoming an "offensive eyesore (to the natural beauty)..." of the area.

Charles also reports that Pomona PD used 153.935 MHz during the recent LA County Fair at the Pomona Fairgrounds. Pomona PD appeared to have a station at the Fairgrounds ("Station 5") & heard the following unit ID's: GEORGE (possible gang units); VICTOR and ZEBRA units (each followed by a numerical designation. In addition, Pomona PD used CLEMARS (154.920 MHz) during several opeartions at the Fair.

From BRIAN [CASD-073]: He reports that San Diego SD could possibly be getting additional 453 MHz freqs for future use (all are simplex):

453.275	Chula Vista (South Bay area) Special events HT use
453.600	Imperial Beach (South Bay area)
453.625	San Diego
453.675	All areas (same as 453.275 MHz)
453.325	All areas (same as 453.275 MHz & 453.675 MHz)
453.700	El Cajon (East County area)
453.850	Santee area (East County area, also possibly the Las Colinas Women's Detention)
460.125	Santee (Men's Detention)
453.875	SD Sheriff Detective frequency
453.975	SD Sheriff Detectvie frequency

Brian also adds that re: the San Diego PD's 800 MHz plan, the city hired a private consultant to determine the implimentation of 800 MHz. The consultant reported that the current VHF system is not inadequate to impliment 800 MHz. The consultant also reported that 800 MHz waves could be absorbed by thick vegetation and numerous hills and valleys would affect radio transmissions. The SD City Council will not approve of any funding until the consultant's report is completed. SDPD is also considering MDT's as well as SD Sheriff. Brain reports that SDPD is using a new detective freq (155.130 MHz) but has not heard any traffic as of yet. In addition, SDPD uses CLEMARS (154.920 MHz) for use by their helicopter ("ABLE") with SDPD ground units as well as other agencies; and NALEMARS (155.475 MHz) as an overflow detective & surveillance channel.

And Brian reports that over at San Diego FD, they are possibly considering a move to 453 MHz in the future, though nothing is certain as of yet. SDFD have moved their radio teleprinter traffic from F-2 (154.145 MHz) to F-8 (154.085 MHz).

And finally, PETER [MA-155] is interested in getting audio tapes of the LA area fire action during the Santa Ana wind conditions. He will reciprocate with Boston area tapes (audio or video) or FCC microfiche research. Contact him: PETER SZERLAG, 24 Albermarle St., Arlington, MA 02174.

With that, we will clear all frequencies for routine traffic until next month...KMA301.

Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming to:

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

ELECTRONIC MAIL: COMPUSERVE > 71077,2554; DELPHI > JORG

OOPS. How time flies... Last month was index month and I didn't, so here it is a day (or month) late and at least a dollar short. Nothing

else in it. It was due in California several days ago and it's bed time and if I don't mail it in the morning it won't appear until the February issue. Since I forgot what month I was writing for, I forgot all the holiday greetings. But this should be there before the end of the year so Merry Christmas and Happy New Year to all.

****

ALASKA

associate editor needed

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August - nothing
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December - nothing

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ARIZONA

Bob Schmulian, 4415 N. Rockcliff Rd., Tucson, AZ 85715

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associate editor needed

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associate editor needed

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IDAHO

associate editor needed
George Wight, P.O. Box 732, Groveland, CA 95321

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associate editor needed

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Fred McGowan, P.O. Box 879, Las Vegas, NV 89101

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associate editor needed

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OREGON

Al Musgrove III, 2402 McAndrews Rd., Medford OR 97504

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John Parken, 4672 S. Deer Creek Rd., Salt Lake City, UT 84124

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WASHINGTON

Kenneth E. MacLeod, P.O. Box 2495, Friday Harbor, WA 98250

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WYOMING

Christopher D. Smith, P.O. Box 1229, Ogden, UT 84402

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August - nothing
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October - nothing
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December - nothing

****

RAILROADS

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91358-0838

Hello again from the Railroads Column. We're starting off the new decade on the right foot, as we received a whole bunch of letters from you this month. As always, your support is much appreciated!

Bob (Asst. Editor-IL) gave our egos a boost by writing, "Just a note to commend you on the fine job that you and Gary do on the Railroads Column. As this is my prime interest, I will try to let you know of anything I hear about in this area. I will confirm that the Toledo, Peoria & Western, which goes through my yard, does operate on 161.400 MHz. They usually have about 4-6 trains a day. However, it is now heavier with the crops being harvested. They are using the diamond-shaped TP&W logo on the engines. Also, as I'm sure you're aware, the Chicago, Missouri & Western, which goes through Bloomington, IL has filed bankruptcy and just recently the St. Louis-Southwestern RR has taken over Amtrak service. This pending the sale to SP. They are still operating on 161.280 MHz. As I am a ham, I'm going to put 147.165 MHz in my radio to see if I hear anything relating to RR. That's all for now; keep up the good work!" [Gary (IL-073) sent a newspaper article about the CM&W bankruptcy and the offer by SP to buy the Joliet-East St. Louis part of the line for $29 million. Apparently the ICC has given SP temporary authority to operate the line pending final approval of the purchase. Santa Fe is said to be interested in the Kansas City-Godfrey line, which would include 50% ownership between Godfrey and East St. Louis. -ed.]

Darrell (WA-080) wrote to ask for Burlington Northern frequencies in Washington state, which we sent him in the SASE he included.

Former member Scott (GA-005) writes, "I have an educated guess about the pioneer RR Co. The word 'Co.' may be a clue. The name of the RR may not be Pioneer RR. In fact I recall last year a company called Pioneer had stock for sale at $1 per share. They were to buy/develop short lines and may already have by then. It would not be surprising to find either that their short lines had no freq(s) or had 161.025."

On another subject Scott continues, "This summer I drove to Tate, GA with my BC70XLT. As I watched Georgia Northeastern employees talk on handhelds I searched the VHF RR band. I received nothing! So I said to myself, they use a business band freq. and there are too many sets of them to monitor. I went into their office and told them that I was with...one of their customers, then asked for their freq(s). They checked the license and found 461.250. I put it in and verified it. When I left Tate I drove to Ellijay. On my handheld I could still receive Norfolk Southern PBX on 160.275. NS calls it 'the A.R.N.' I assume 'A' stands for Atlanta; I was 60 miles from Atlanta! Also I was 25 miles from any NS line. I wonder if other RR PBXs are that strong. I have gotten a lot of info on the A.R.N. Lockheed/Dobbins AFB/NAS Atlanta Complex has two Baldwins and uses 2-way radio. I have been wanting to know their freq(s) for years. Atlantic Steel Co. has 4 switch engines in Atlanta including an SW-7. People sitting

on the Amtrak Crescent in Peachtree Station are sometimes 50 feet away from the switchers as they work. They also use 2-way radio but I don't know what the freq(s) are. I wish I did. This company also has a larger industrial railway near Cartersville, GA. If they use 2-way I would like to know their freqs." [Try 153.125, 153.260, and 153.380 at Atlanta; 158.325 and 158.430 at Cartersville. These are licensed for manufacturing use. Also licensed: 154.570, 467.1125, 467.1625, 467.7625, 467.7875, and 467.8125 in the business band; 467.2125, 467.2625, 467.3125, 467.3625, and 467.4125 for manufacturing. -ed.]

Scott has one additional comment: "RCMA reported 457.900 as Amtrak Station Services in Atlanta and Richmond VA when I sent them in. It seems that it is not in use any more. What replaced it?"

Curtis (TN-033) sent an article about a freight train derailment in Lebanon, TN. Nice to hear from you again, Curtis.

Ed (CA-RI-013) saw our mention of a scanner repair shop in a previous column and reports that Seatronics, 1733-A Monrovia Ave., Costa Mesa, CA 92627-4421, phone (714) 631-1733, has done a good fast job of Regency repair for him on several occasions.

Carl (NY-117) sent another of the monthly reports to commuters issued by Metro-North Commuter RR.

Cinders (Philadelphia NRHS newsletter) reports that CSX Transportation will adopt 161.370 and 161.520 as systemwide road and dispatcher frequencies, phasing out 160.590, 161.100, 160.230, and 160.320.

Bob (nonmember) writes, "While traveling through New Hampshire and Vermont I stumbled upon the St. Lawrence & Atlantic's road channel (#2 on their radios). According to the railroad the new channel has been in use since October 10th. The frequency is 160.965. In addition, the St.L&A is still using CN/GT 161.415." [St.L&A bought Canadian National's Grand Trunk line through New England. -ed.] Bob also reports that Canadian Atlantic Railway (CP Rail subsidiary) is still using CP Rail channels 5 and 6 east of Megantic, Quebec.

Another Bob (also nonmember) reports that tourist line Heber Creeper Mountain Scenic Railroad at Heber, Utah, is using 151.865 as channel 1. He was not able to find out what channel 2 is but crews say they hardly ever use it. Union Pacific uses 161.175 for their carmen at East Yard in Los Angeles. It is a very busy simplex channel. 161.430 is used by Southern Pacific as an alternate channel for crews doing switching between Palmdale and Bakersfield, CA. It is used also by crews on the Oak Creek and Lone Pine Branches, and as a yard channel in Bakersfield. Bob also notes that "Trackstar" radios are made by Harmon Industries, Inc., not Motorola. Motorola does produce a 96-channel railroad radio, also.

NEW AMTRAK CHANNELS

Reports are coming in that Amtrak is instituting radio channels for its crews to use on the road for communications between crew members. Comments are being monitored such as "switch to the Home Channel" and "go over to the Am-Channel". Between Atlanta GA and El Paso TX the frequency is 160.440. Between El Paso TX and Los Angeles CA there are conflicting reports: one says 160.650, the other says 160.740. Between Los Angeles and Needles CA; Los Angeles and Las Vegas NV; and between Los Angeles and Santa Barbara CA the frequency is 160.455. Between Las Vegas NV and Salt Lake City UT; and between Needles CA and Albuquerque NM it is 161.100. We need confirmation of these reports, and the corresponding frequencies for other parts of the country.

Cinders reports that Amtrak is using its new road channel (160.920) Washington-Wilmington, Overbrook-Coatesville, North Race-Atlantic City, New Haven-Springfield, and New Haven-Cranston RI. In addition, the new freq. was to be placed in service during early October on other portions of the Northeast Corridor south of the New York Division post near Holmesburg.

ALASKA RAILROAD

by ED (CA-SF-017)

I just got back from a trip to Alaska. Here are the active channels for the Alaska Railroad that I monitored for a week:

164.625 Ch 1 Road & Dispatcher
165.2625 Ch 3 Yard
164.9875 Ch 4 Yard & Gravel Trains
171.725 Ch 11 used very little

They broadcast their daily "lineup" of about ten trains every morning at 0715 and repeat it around 1215 on 164.625. I drove from Anchorage to Fairbanks and was able to monitor along the entire route. Keep up the good work.

[We're surprised to hear that these old frequencies are still in use; we thought Alaska RR had switched to freqs. in the VHF railroad band several years ago when the railroad was sold to the state by the federal government. Could they be simulcasting? -ed.]

BIG SOUTH FORK SCENIC RAILWAY

by BART (GA-001)

Big South Fork Scenic Ry., Stearns, KY uses 160.800, confirmed by monitoring. Operation is on the Kentucky & Tennessee Ry. and the frequency is that assigned to the K&T when it was functioning. I don't know the exact relationship between the two entities.

The train now goes to Blue Heron Interpretive Center (U.S. National Park Service) but covers all track formerly used as it then goes to the former destination about 1/2 mile short of Worley to run the engine around the train for return to Stearns. K&T track beyond Yamacraw Bridge is pulled up.

SAN DIEGO TROLLEY

by BRIAN (CA-SD-073)

Here is some updated info. on the San Diego Trolley system frequencies that should be added to info. I sent earlier. This information is from extensive research by myself and RCMA member Fred (CA-SD-089). We have both been trying to search out the bands on this to get it up to date. The trolley designations are as follows:

160.665/160.935 Ch 1 South Line
160.380/160.905 Ch 2 East Line
160.710/161.415 Ch 3 Central/Maintenance
161.565 Ch 4 Security (simplex for now)

Apparently 161.295 will be used as the input frequency to Ch 4 at a later date.

463.5875—This is the San Diego Trolley system link to Mt. Otay. However, nothing has been heard on this channel. We are still listening for traffic.

Both Fred and I are still looking for the frequency used by the MTDB (Metropolitan Transit Development Board) taxicab and jitney inspectors. Haven't heard anything yet.

COLORADO

by TIMOTHY (MO-070)

Most of this data came from when I worked for railroads here in Denver, with a little filling in the blanks from the Newsletter. Most have been personally verified. Several items are missing, most notably the ex-Missouri Pacific UP line from Pueblo to the Kansas border. They used 160.410 Road and 160.470 Yard when I worked for them eight years ago, but I am not sure if that is true today. [It is, as far as we know. -ed.] Also missing is the tourist line out of Leadville CO to Climax CO. Last year they had handhelds, but I was never able to figure out the frequency. The same goes for the restored trolley that runs in Denver. They too have handhelds, but I do not know the frequency. I hope you and the readers enjoy this list.

AAR Test Center Pueblo

172.700 Ch 1 Road Disp - Security
173.150 Ch 2 Alternate Road Disp - Security
173.050 Ch 3 Audio and Telemetry
172.825 Ch 4 General Operations
171.650 Ch 5 General Operations

172.300	Ch 6	General Operations
171.2375	Ch 7	General Operations
173.9125	Ch 8	General Operations

Burlington Northern

161.100	Ch 1	Road
161.160	Ch 2	Road & Yard
161.205	Ch 6	Police
160.590/161.460		Car Dept.
160.665/161.505	Ch A	PBX-Boulder, Brighton, Trinidad, Wray
160.620/161.565	Ch B	PBX-Colorado Springs, Merino
160.575		Mechanical Dept.-Denver-Renix Yard
160.995		Piggyback-Denver-Renix Yard
161.355/160.215		Traveling Freight Agents-Roggen

Cadillac & Lake City Colorado Springs

160.965	General Operations

Colorado & Wyoming

160.710/161.250	Road Repeater-Allen Mine
160.305	Switching-Pueblo
160.380	Switching-Pueblo
160.425	Switching-Pueblo
160.515	Switching-Pueblo
160.575	Switching-Pueblo
160.665	Switching-Pueblo
160.785	Switching-Pueblo
160.950	Maintenance of Way-Pueblo
161.055	Switching-Pueblo
161.250	Road-Pueblo
161.385	Switching-Pueblo
161.505	Switching-Pueblo

Coors Brewery Golden

462.475/467.475	Intra-Plant Switching

Denver & Rio Grande Western

160.920	Ch 1	Road
161.490	Ch 2	Yard
161.565/160.395	Ch 3	Road
160.455	Ch 4	Road
160.725	Ch 5	Maintenance of Way
161.190		Special Agents
452.900		Disp. Link: Alamosa-Ft. Graland, Arvada-Moffat Tunnel, Grand Jct.-Mack, Pueblo-Twin Mtn.
457.900		Disp. Link: Grand Jct.-Grand Mesa, Salida-Buena Vista, Walsenburg-Edmonds
160.275		unknown use-Denver
160.905		unknown use-Denver & Pueblo
160.980		Piggyback-Denver & Grand Jct.
161.130/160.485		Car Checker-Denver
161.130		Hump Tones-Grand Jct.
161.130/160.275		Clerks-Pueblo
161.220		Storehouse-Denver
161.220		Hump-Grand Jct.
161.220		unknown use-Pueblo
161.235/160.365		PBX-Denver & Grand Jct.
161.265		unknown use-Denver
161.310/160.830		Carmen-Denver & Grand Jct.
160.335/160.830		Carmen-Pueblo
161.175/160.365		PBX-Pueblo
161.235		unknown use-Pueblo

Durango & Silverton Narrow Gauge

160.860	Road
161.295	Administration-Ticket Sales

Georgetown Loop Georgetown

161.115	General

Great Western Loveland

160.875/160.260	Road

Manitou & Pikes Peak Manitou

161.550		General

Rocky Mountain Railcar

160.305/161.385		General-Commerce City
463.600/468.600		General-Sedalia

Rocky Mountain RR Club Denver

161.040		Passenger Excursions

San Luis Central Monte Vista

160.680		General Operations

Santa Fe

160.650	Ch 1	Road
161.010		Maintenance of Way
161.205		Special Agents
160.560		TOFC Loading-Big Lift
160.335/161.460	P-4	PBX-Cheraw, Sedalia
160.245/161.535	P-2	PBX-Colorado Springs, Lamar
161.370		Disp. Link: La Junta-Frick

Union Pacific

160.740	Ch 1	Road
160.515	Ch 2	Road
160.290/161.520	Ch 3	PBX
160.605/161.025	Ch 4	Maintenance of Way Repeater
160.680		Yard
161.070/160.590		Car Department
161.430/160.410		Taxis, Clerks

Wyoming Colorado Walden

160.380		

Thanks to everyone who contributed to this month's column—we hope to hear from many more of you during the coming year. And we wish a Happy New Decade to all our readers!

—Gary & Bill

SPORTS COMMUNICATIONS

Send frequencies and other information relating to monitoring sports events to:

Lynn Burke (VA-114), 285 Westwind Drive, Newport News, VA 23602-4447

I apologize for missing the yearly index last month, but illness got the better of me. I was lucky to get what I did in the mail to Carol, so we'll try to make up for it this month for those of you who use the indexes. Plus we've put together what we have in the files for major indoor sports arenas used by NBA, NHL and other teams.

INDOOR ARENAS/TEAMS

151.865 -- Long Beach (Cal.) Convention Center
153.815 -- McNicholas Arena, Denver (Denver Nuggets)
453.425 -- New Orleans Superdome
453.775 -- New Orleans Superdome
462.675 -- Pontiac Silverdome
462.700 -- Pontiac Silverdome
154.600 -- Madison Square Garden, N.Y.
154.600 -- Spectrum, Philadelphia
464.950 -- Spectra-Guard at the Spectrum, Philadelphia
462.600 -- Kingdome, Seattle
462.550 -- Kingdome, Seattle
154.600 -- Boston Garden security/operations
154.570 -- Boston Garden concessions
151.895 -- Capitol Center, Washington, D.C.
462.675 -- Capitol Center, Washington, D.C.
453.350 -- Atlantic City Convention Center
453.675 -- Atlantic City Convention Center
856.7875 - Bradley Center, Milwaukee

857.7875 - Bradley Center, Milwaukee
463.3875 - Reunion Arena, Dallas
151.925 -- Chicago Stadium
462.0375 - Chicago Bulls (NBA team)
467.800 -- Market Square Arena, Indanapolis
464.550 -- The Horizon, Rosemont, Ill.
151.955 -- Sacramento ARCO Coliseum security
151.835 -- Sacramento ARCO Coliseum maintenance
464.3375 - Hartford Whalers

1989 INDEX

JANUARY
Washington-area frequencies, plus Kennedy Center
FEBRUARY
Extensive listing of auto racing tracks and governing bodies.
MARCH
Extensive listing of drivers in the NASCAR, CART and other circuit drivers.
APRIL
National Football League wireless microphone frequencies and major league baseball frequencies.
MAY
No column
JUNE
Chicago-area horse racing tracks, Long Beach Grand Prix
JULY
New England speedways, Richmond Braves
AUGUST
Indianapolis 500 drivers, administrative and media frequencies
SEPTEMBER
Sportsman Park (Ill.), Atlantic City Convention Center, National Football League
OCTOBER
Texas stadiums, Chicago area, NASCAR, Wisconsin-area
NOVEMBER
World Alpine Skiing championships, more NASCAR (Busch Grand National series), Mid-Ohio race course, All-Star baseball game, more Texas stadiums.

That's all for this month.

SPECIAL FEATURE

COMPUTER - AIDED SCANNING (CAS)

by Steven R. Cook

Communications professionals and enthusiasts have available to them a powerful new tool in the area of Computer - Aided Scanning (CAS). This is a field that can be expected to grow rapidly for the same reasons that modern digital communications receivers are more appealing than the old manually tuned receivers - power and control.

AN HISTORICAL PERSPECTIVE

For various reasons, CAS has not been widely available or utilized to date:

-- There is no hardware standard for linking communications receivers and computers. The various scanners which represent that they have computer interfaces make use of very different interfaces including serial (RS232 and TTL) and parallel (mostly using the Centronics format). Control commands, answerback, signal detect and signal strength must all be addressed and each manufacturer has different views on how to accomplish this.

-- There is no software standard. Some conventions are necessary in order to do such things as store frequency lists on a

disk file. Also parameters such as scan delay and speed must be defined and encoded.

-- Communications professionals and enthusiasts are not familiar with CAS concepts and the existing dedicated scanner circuitry is adequate for some basic needs.

As personal computers have become more powerful and less expensive and as communication receiver circuitry improves, some articles have been written on combining the two machines and a few interface products have appeared on the market. Most of these are low - end programs without adequate user interfaces and they have limited usefulness. However they represent meaningful evolution towards CAS.

For the reasons expressed in this article, it is likely that CAS will enjoy rapid growth during the next several years. Within two years, it will be unusual if communications professionals and serious scanning enthusiasts do not utilize CAS extensively.

CAS ADVANTAGES

The advantages of CAS revolve around control and recording.

Control is important to accomplish your individual objectives. You may wish to monitor more frequencies than your scanner will accommodate. Or you may wish to search a range of frequencies with a frequency increment not available on your scanner. It may be useful if the purpose of a particular frequency is shown on the computer screen while it is tuned in and you may need a readily available set of communications codes such as "10 CODES".

Recording of monitoring results can be useful in saving such information for future reference or analyzing the usage of various frequencies. For example if you are involved in distress signal monitoring or law enforcement, having an accurate record of a signal's time may assist in location and case management. In the area of frequency usage, it is interesting to note that both the most frequently used and least frequently used channels, are of interest. The most frequently used channels, by definition, carry the highest quantity of information while the least frequently used channels are often those reserved for the most sensitive and important information (which justifies reserving a frequency for a limited quantity of data). CAS can help define these extremes.

The combination of a communications receiver with a microcomputer can give 2 + 2 = 5 kinds of results. In addition to performing traditional monitoring functions better, entirely new applications will emerge. One such area is sophisticated spectrum analysis over extended frequency and time domains which should lead to better frequency allocation management. Another will be even more automated management of communications including filtering signals (the user only listens to signals which have attributes of special interest) and security. It is likely that applications of CAS have not even been discovered yet.

HARDWARE CONSIDERATIONS

As far as communications receivers which lend themselves to CAS, there are several quality selection available from ICOM, Japan Radio, Kenwood and Yaseau. The marketing material and specifications for each receiver will indicate whether a computer interface is included or available.

The personal computer provides the ideal control device for a scanner due to its modest cost and strong features. The IBM personal computer (or a compatible) is probably the best selection due to its position as market leader which will ensure superior market support and flexibility (also it is available to almost all businesses and many individuals). Some CAS products cater to the Commodore and Apple users, however these are generally the limited packages. With IBM compatible computers selling at competitive prices, it is best to stick to the mainstream.

SOFTWARE CONSIDERATIONS

Software is the most important part of a CAS system since it defines and controls a scanning application. In fact the lack of appealing software has been the biggest limitation of CAS to date. The following are the important attributes of CAS software:

-- Effective functions
-- Ease of learning and use
-- Meaningful software formats

Effective functions involves defining important scanning parameters and accomplishing scanning objectives. For example scanning speed should be controlled and variable under a CAS system. Traditional limitations such as the type of scan delay and tuning increments are all user definable under effective CAS software.

Ease of learning and use has been a barrier for those not versed in computer programing. Communications/interface applications and time sensitive routines are well - known to be among the more difficult programing challenges. Unfortunately manufacturer support is often limited to sketchy outlines of digital signals. Most existing programs are fairly unsophisticated in terms of features, user interface and flexibility.

Software formats are vital for developing applications, exchanging data and encouraging evaluation of CAS systems. The Datametrics Scan Format is the first public domain format developed exclusively for scanning (see Datametrics Scan Format insert). The format is intuitive and basic, but supportive of sophisticated applications - such attributes are characteristic of most successful standards.

FIRST CAS PRODUCT - DATAMETRICS COMMUNICATIONS MANAGER

The Datametrics Communications Manager is the first system to be marketed as a CAS system and utilize the Datametrics Scan Format. The system includes a simple but elegant hardware interface which addresses the problem of signal on/off status without any special internal connections to the ICOM R7000 on which it is designed to be operated.

Software, however, is the centerpiece of the Datametrics Communications Manager. The program is menu driven and requires no specialized computer knowledge. The user is presented with suggested scanning parameters which means that basic scanning can be performed immediately while at the same time it permits users to modify the system's powerful control features as experience grows and special needs develop.
The system will scan disk files of frequencies (a sample of which is provided with the system), ranges of frequencies or scanner memory. The program can control scan speed, scan delay, maximum time monitored and other features. The screen displays scanning parameters and information on the signal being monitored including a comment on the frequency. Function keys bring up help screens, a list of user defined codes (such us "10 codes") and various scanning functions (see Screen Display insert).

The system has its own editor for building, modifying, and printing frequency files. Popular word processing programs can also be used to build frequency files.

Recording under the Datametrics Communications Manager is controlled by the autolog features. The autolog commands permit one of two levels of detail to be captured during communications monitoring (total signal time by frequency, or start and stop time for each individual signal). The related autolog reporting commands provide numeric and graphic displays for scanning sessions. Also the data is available for analysis by other computer programs such as spreadsheet programs.

Other functions of the system include uploading and downloading of the ICOM channels and utility functions. The downloading function is a convenient way to enter ICOM channels into the receiver.

The program incorporates state of the art user interface features. The program is menu driven under a well - structured set of commands. During scanning, function keys control such things as help screens, pause/resume facilities and others. The system manual covers each of the commands with straightforward descriptions and contains helpful suggestions and appendixes.

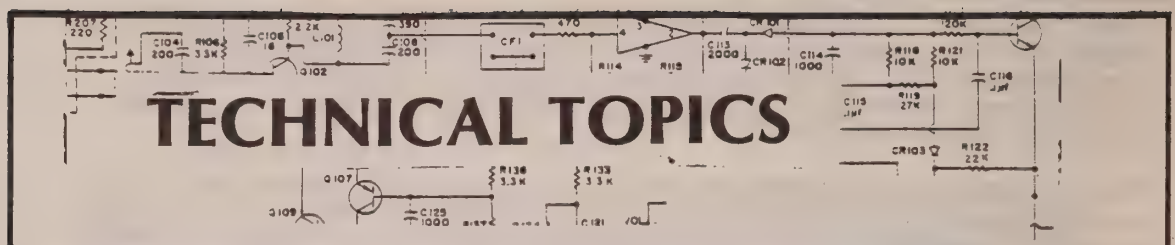
CAS FUTURE

As has become evident, CAS is much more than a device or computer program - CAS is a concept. The CAS conceptual framework is likely to change the way communications professionals and enthusiasts approach scanning.

One major CAS benefit will be the distribution of frequency guides on computer disks. This will save countless hours of tedious entering and reentering of frequencies and in fact encourage more frequency exploration. A second benefit should be the evolution of hardware and software standards of communications receivers leading to greater usefulness and new applications.

In the future, additional auxiliary computer functions such as decoding transmitted signals, possibly even voice recognition will develop. Communications professionals and enthusiasts have a powerful new resource available in CAS.

The RCMA telephone number is (714)545-9551. It's `manned' by an answering machine, and while it's been established for RCMA members, its use is limited. You may leave a message concerning delivery or renewal problems; you cannot use it to request club information or order back issues. Appropriate response will be made by letter or postcard, not by telephone. Any call regarding a membership problem MUST be accompanied by your membership number.
Please remember that it is a toll call, so be sure before you dial that a written communication won't do just as well. Do not call regarding a missing newsletter before the 20th of the month of the issue in question. **Your message will be relayed to the appropriate person, but your call will not be returned.**



TECHNICAL TOPICS

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions to:

Alexander Woollcott (GA-080), 102 Lacey Lane, Winder, GA 30680

Now that the holiday season has arrived, I would like to suggest a few gift ideas if you are considering purchasing a holiday gift for a radio monitoring hobbyist. Of course, the appropriateness of any gift in this area will depend primarily on the particular needs of the individual to whom you will give the present, but I have some general suggestions. First, consider as a stocking stuffer two or three different antenna or coaxial cable adapters or connectors. This gift would be appropriate for any hobbyist who has more than two communications radios.

For example, I never seem to have enough UHF/BNC adapters. Second, consider giving someone a good lightning arrestor. These devices can be relatively inexpensive but invaluable in protecting equipment from static buildup and, to some degree, lightning strikes. Third, a related gift for someone very special would be a high quality, grounded, surge protector. Keep in mind that 80% of the surge protectors on the market are not particularly effective in protecting high quality electronic equipment (radios, computers) from power surges or irregularities. With regard to surge protectors, the value that you receive is proportional to what you pay. A good surge protector costs around $50.00.

Another useful gift is an FM broadcast band interference filter. In areas bombarded by strong FM signals, which can wreak havoc on monitoring weak communications signals, the filter can minimize or eliminate such interference. The filter is small enough to fit in the palm of your hand and Radio Shack has one for under $13.00! This is a great buy. Bear in mind, however, that the filter is designed for televisions and it is equipped with F type connectors. To run high quality coaxial cable to and from the filter, you will need an adaptor reducing the UHF connectors on the cable to F connectors. This is because it is difficult if not impossible to attach an F connector to thick, high quality cable, which is the type you should be using.

Speaking of coaxial cable, that is often a great gift idea. Try to get connectors placed on the cable before giving it as a gift. Speaking of cable, another useful present for a communications hobbyist would be one or two short connecting cables, which could be used to run from a preamplifier output to a receiver. These short connecting cables can be inexpensive thin cable, with no adverse effect on performance. Once again, your gift is most likely to be appreciated if you assemble connectors on both ends of the connecting cables. Another gift idea for someone who truly enjoys listening to his radios is an external speaker. Good external speakers can be quite expensive, but the improvement in listening quality is often striking. A weak signal sounds much stronger on a good speaker system, tailored to a communications radio. You are likely to find the best external speakers in a store specializing in amateur radio equipment. I have one made by Kenwood that is exceptional.

Finally, consider making a gift to someone of one of the good frequency directories. They are not all good. The only directories I recommend are Police Call and the hard to find Scan America. I also hardily recommend specialized frequency guides, such as Tom Kneitel's Guide to Secret Federal Frequencies and the Companion Guide to Aircraft Frequencies.

I received an inquiry from Howard (GA-093) which I will print in full. While I am unfamiliar with the problem referred to by Howard, I am printing his inquiry in full so that members can respond.

I am writing about my recent purchase of a Bearcat 100 XLT. I am very pleased with it and I would buy another one given the chance. I found one defect, however, that I thought deserved some input in your column. It seems that after the full 14 hour charge, the unit would not run except with the supplied AC adapter connected to it.

I opened up the battery pack and, using a multitester, I concluded that a resistor had been accidentally left out in the manufacturing process. There was a space for it and a drawing but it was not there. So I tried first a 160 ohm resistor and it worked but only for about one hour after a full charge. Then I tried a 22 ohm resistor and it is slightly warm after a full charge but it runs the full 5 hours specified operating time. My questions are: Has anyone else had this problem with a Bearcat and is it safe to leave this resistor in since it works so well?

Our own Roger West writes inquiring whether there is any way to measurably improve the sensitivity of the Radio Shack Pro-2004. Roger, as you may know, monitors from a very remote location in Wisconsin, far from any of the kind of interference that typically plagues our urban and suburban listeners. As we have noted in this column in the past, the Radio Shack Pro-2004 has noticeably poorer sensitivity than earlier Radio Shack units and units put out by Uniden/Bearcat and others. In return for the compromise on sensitivity, the Pro-2004 shows much better than average resistance from intermodulation and other interference. You have hear me lament before how ridiculous I think it is that manufacturers choose not to design a unit with both good sensitivity and good interference immunity. By the way, the Pro-2005 gets back to the typical pattern in the most popular scanning receivers: high sensitivity and low threshold for interference. Roger, to answer your question, by all means get a good preamplifier. The only preamplifiers that I recommend are the ultra low noise single band preamps from Hamtronics in New York. You can find ads for this company in most amateur radio magazines. Bear in mind, Roger, that the best preamplifiers are those designed for a rather narrow range of frequencies. For example, the Hamtronics preamplifiers for specific bands cover only about a 5 MHz segment of each band. The wide-band preamplifiers available through Grove Enterprises and others offer less performance because of a necessarily higher noise figure.

Can you believe it! I am still receiving Technical Topics Questionnaires from members. Thank you for taking the time to respond. I still have more results to report, but let me briefly acknowledge receiving questionnaires from Morris (GA-030) and Robert (MD-075). Thank you, gentlemen, for your response.

I am still eager to hear from any members who have utilized EEB's (Electronic Equipment Bank's) performance upgrade package the ICOM R-7000. Please let me know if you have any information on this.

Want to Get Your Newsletter 1st Class?

Getting your RCMA Newsletter mailed 1st class may be your answer if you have consistently slow or erratic service with 3rd class mailing. 1st class costs a lot more that's why we use 3rd to begin with but if you can spend the greater amount, here's how:

Check your mailing label for the number of months left on your current membership. (If it says 10/89, for example and you are reading this in June, then there are 3 months remaining.) Multiply the number of months by the amount of 88 cents. Make out a check or M.O. for that amount to RCMA, Inc. Send to: RCMA General Manager, P. O. Box 542, Silverado, CA 92676. Mail it with enough time to allow its delivery before the end of the month.

Space Communications
column editor needed!!

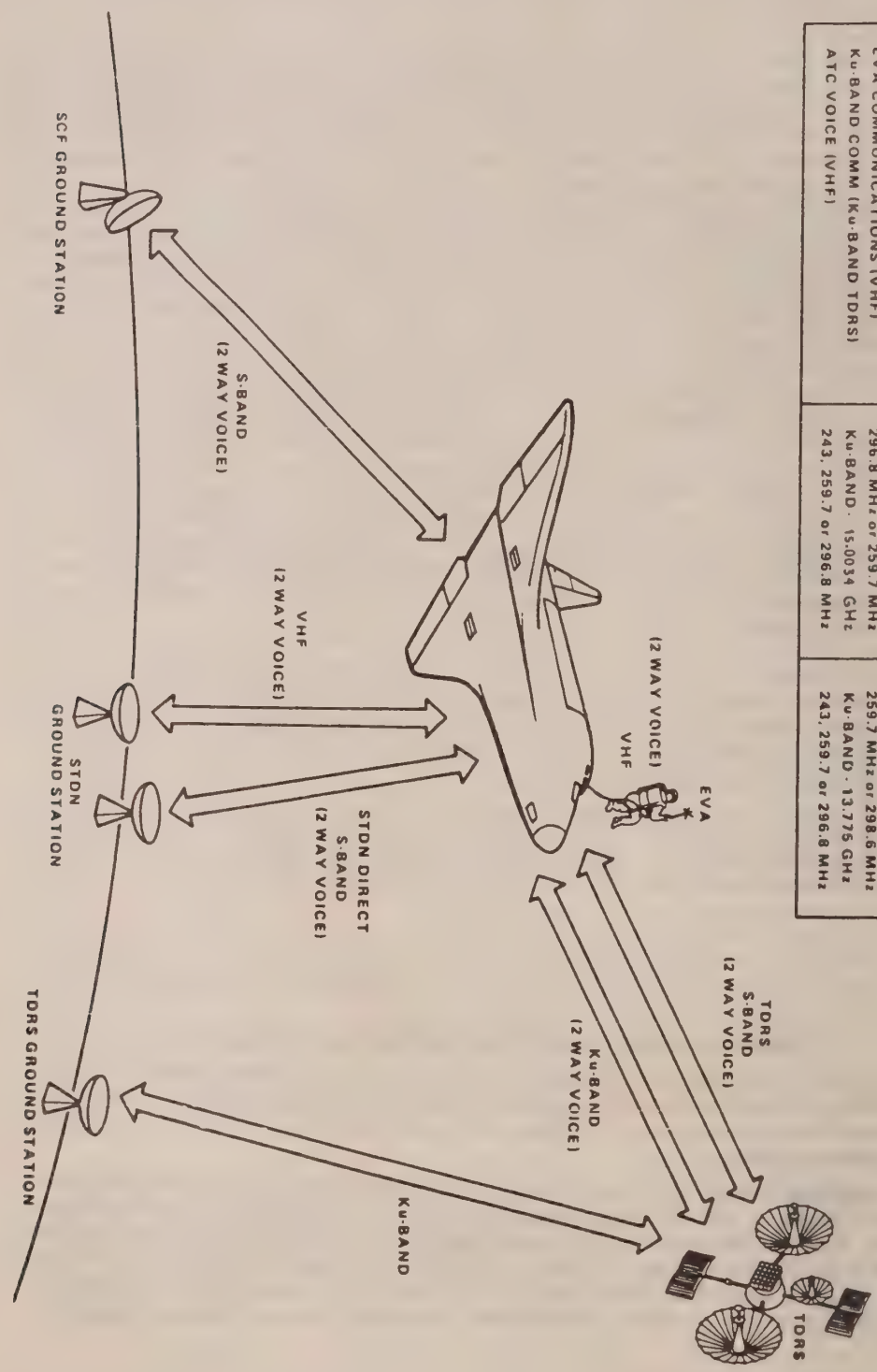
Free Membership,
1st class mail delivery

Interested? If you think you qualify, please contact:
William Mauldin, 961 Azalea St., Boca Raton, FL 33486

Diagram below submitted by Andy (TX-232)

SPACE SHUTTLE VOICE FREQUENCIES

FUNCTION/SYSTEM	ORBITER TRANSMIT	ORBITER RECEIVE
STDN PM 1 } S-BAND STDN DIRECT	2287.5 MHz	2106.4 MHz
STDN PM 2 } AND S-BAND TDRS	2217.5 MHz	2041.9 MHz
AFSCF PM-1 } S-BAND SCF	2287.5 MHz	1831.787 MHz
AFSCF PM-2 }	2217.5 MHz	1775.733 MHz
EVA COMMUNICATIONS (VHF)	296.8 MHz or 259.7 MHz	259.7 MHz or 298.6 MHz
Ku-BAND COMM (Ku-BAND TDRS)	Ku-BAND - 15.0034 GHz	Ku-BAND - 13.775 GHz
ATC VOICE (VHF)	243, 259.7 or 296.8 MHz	243, 259.7 or 296.8 MHz



RCMA NEW MEMBERS LIST

Please Note: New members who leave blank the `permission to print full name and address' section of the RCMA membership application form will see only their first name in the above list. This is true also for new members whose request for membership was not via an application form. RCMA will publish a member's name only if we have written permission on file.—Editor

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AZ  104 - W C GEASA;9989 N CLAYTON RD, STAR BAR R;MARANA;AZ;85653
CAAL063 - CHESTER JAFFEE;P O BOX 5369;BERKELEY;CA;94705
CALA800 - PAUL  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA801 - EDWARD  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CANA142 - C  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CAOR386 - CARL MCMILLEN;22471 LA VINA DR;MISSION VIEJO;CA;92691
CAOR387 - PEGGY VINCENT;12911 DALE ST #49;GARDEN GROVE;CA;92641
CAOR388 - ALERT  --LAST NAME AND ADDRESS WITHELD BY REQUEST
CARI075 - BOB ETTLEMAN;707 EVERGREEN CT;RIVERSIDE;CA;92374
FL  304 - JOHN POWERS;995 DENTON BLVD #A2;FT WALTON BEACH;FL;32548-1673
FL  305 - C W BALLAH;3930 14TH LANE NE;ST PETERSBURG;FL;33703
GA  115 - JEFFREY  --LAST NAME AND ADDRESS WITHELD BY REQUEST
IA  068 - GUSTAV SCHUELER;3828 69TH ST;DES MOINES;IA;50322
ID  021 - AL STACK;276 CEDAR RD #112;EAGLE;ID;83616
IL  439 - FRED  --LAST NAME AND ADDRESS WITHELD BY REQUEST
IL  440 - JOHN CHAMBERS;33 GLOUCESTER;BLOOMINGTON;IL;61704
IN  112 - LARRY JACKSON JR;5215 WERLING DR;FORT WAYNE;IN;46806-5386
KS  055 - TRACY TIPPING;4558 ANDERSON AVE;MANHATTAN;KS;66502
MA  232 - JOSEPH BROWN SR;2 BRISCOE ST;WOBURN;MA;01801-5301
MD  161 - HOWARD SNYDER;20 FIFESHIRE CT;GAITHERSBURG;MD;20879
ME  026 - EDWIN  --LAST NAME AND ADDRESS WITHELD BY REQUEST
ME  027 - DELRAY ANDREWS SR;P O BOX 8;CARIBOU;ME;04736
MN  072 - KORE  --LAST NAME AND ADDRESS WITHELD BY REQUEST
MN  073 - ROBERT  --LAST NAME AND ADDRESS WITHELD BY REQUEST
MS  039 - ROBERT  --LAST NAME AND ADDRESS WITHELD BY REQUEST
NC  103 - GARRY WALL;512 N WAKEFIELD ST;ZEBULON;NC;27597
NC  104 - RANDALL KENT DAVIS;217 FRIENDSHIP CIRCLE;WINSTON-SALEM;NC;27106
NJ  301 - JIM MALCOM;10 WHIPPANY RD RM 3A363;WHIPPANY;NJ;07981
NJ  302 - ROGER SCHROEDER;506 COUNTRY CLUB RD;BRIDGEWATER;NJ;08807
NJ  303 - ROBERT MURAY;5 ROCKAGE RD;WARREN;NJ;07060
NJ  304 - GARY BERNSTEIN;109 DANBURY COURT;EAST WINDSOR;NJ;08520
NJ  305 - JOHN  --LAST NAME AND ADDRESS WITHELD BY REQUEST
NM  027 - FRANK LUCERO;P O BOX 655;ESPANOLA;NM;87532
NY  475 - ANTHONY SCLAFANI;6092 CR 129;ROMULUS;NY;14541-9533
OH  250 - NEIL SCOTT MCKINNEY;71 MICKEY RD;SHELBY;OH;44875-1735
PA  292 - BILL  --LAST NAME AND ADDRESS WITHELD BY REQUEST
TX  256 - BILLY  --LAST NAME AND ADDRESS WITHELD BY REQUEST
TX  257 - SCOT WAGNER;7940 PIPERS CREEK RD #438;SAN ANTONIO;TX;78251
VA  165 - J MIKE  --LAST NAME AND ADDRESS WITHELD BY REQUEST
WI  116 - LINDA HEINICKE;6418 N 51ST ST;MILWAUKEE;WI;53223-6008
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New Years Resolutions

By the time you reach this portion of the newsletter it should be December 29th, and your thoughts are on the coming year.

To counter the new series of repressive laws pertaining to scanners, may I suggest a resolution to "Get an Amateur Ticket" during the year 1990. In most cases this license will exempt your use of scanners from such laws, and should be viewed as good insurance.

Amateur Radio classes are available most every where, and if you cannot locate one locally, I would recommend Gordon West's Radio School which is available at all Radio Shack stores. Gordon CAOR017 is one of the oldest members of R.C.M.A. and has assisted most of the LA Area members to obtain their tickets.

John R. Clark CAOR078

For Your Information—

MEMBERSHIP CARDS AND BADGES

RCMA has no badges, decals, or membership cards for sale or distribution. The label on your newsletter is your membership card. While other clubs may have gimmicks or commercial good deals, our 'good deal' is your newsletter. You determine its content because you write it.

MAILING PROCEDURES

The newsletter, which is mailed bulk rate each month under a 3rd class permit, has a cover date for the following month. This practice is followed so that the U.S. Post Office can deliver your issue no later than the first of the month designated on the cover.

New members whose applications are received before the end of the month will begin receiving the newsletter the following month. The first issue will be dated the month after that—as described above.

RENEWAL PROCEDURES

One month before your membership—and therefore your newsletter delivery—is due to expire, you will receive a renewal notice in the form of a postcard. It contains all the information you need to continue receiving the newsletter. Please return this card with your renewal check/money order.

Renewal checks and new membership applications received by RCMA's General Manager, P.O. Box 542, Silverado, CA 92676, are processed for deposit on a weekly basis. Actual computer updating is done at the end of each month. If your check/M.O. is received after this cut-off date, you will miss the next issue of the newsletter and your new renewal date will be moved back accordingly.

PRORATED MEMBERSHIPS

Due to postage costs and other considerations, membership applications or renewals for any sum less than the current rate are prorated accordingly. This means that the renewal date will be due in less than a year. Please do not not send more money to finish the year; just renew when the prorated date comes up.

Also because of postage costs, RCMA cannot comply with member requests to supply back issues free of additional charge (see the monthly Calendar section regarding ordering of back issues). If a late renewal results in a missed issue, the newsletter can be ordered from RCMA's General Manager.

ADDRESS CHANGES

MEMBER notification of address changes are also updated at the end of each month. If a member initiated address change notice arrives after the cut-off date, the mailing label will not reflect the new address until the following month. In this case, two things happen. The first is that the newsleter will still go to the old address and the USPS will return it to RCMA at a cost to us of 30 cents. The second is that you will have to pay 'back issue' costs to obtain that particular copy of the newsletter. So, please try to notify us as far in advance as possible. It's to your benefit—and RCMA's.

SPECIAL FREQUENCY REQUESTS

Get in touch with your local RCMA chapter (see monthly Calendar section for locations) or use the Contact/Info Wanted column for frequencies in your area. RCMA is not yet set up for national distribution of frequencies, although ultimately the 'big picutre' could include copies of the FCC and IRAC data bases, a fast computer and software to select and sort in any order.

DISCLAIMER

RCMA, Inc. has non-profit incorporation status in the state of California as a club for scanner enthusiasts. Neither RCMA or its newsletter are affiliated with, participate in the management of, or are responsible for, any other organization or publication. This includes POLICE CALL, put out by RCMA's long-time good friend, Gene Hughes. Queries about POLICE CALL cannot be answered by RCMA.

PLEASE REMEMBER—when writing to RCMA for any reason, include your membership number. Use it on your correspondence, checks, or money orders. RCMA tries hard to be responsive to your questions/problems. Using your membership number when you write helps us be of help to you.

The RCMA Board of Directors supports the policy of not printing certain federal law enforcement frequencies, e.g., Secret Service, FBI, Customs, DEA. Agreement with this policy has been reinforced by a membership survey.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.

RCMA
P. O. Box 4563
Anaheim, California 92803

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